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AUTHOR	Meyen, Edward L.: Altman, Reuben
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ABSTRACT

Part 8 of a series of 13 instructor's manuals for the competency based training of curriculum consultants for exceptional children focuses on the development of materials and media. Three competencies are considered: (1) that a curriculum consultant should be capable of providing direction in the development of teacher made instructional materials, (2) that a curriculum consultant should be capable of maximizing the use of instructional media by the teaching staff, and (3) that a curriculum consultant should be capable of providing direction in the establishment or revision of a local resource center. Among materials included in the manual are lists of behavioral objectives for the module, enabling activities, and evaluation criteria for each of the competency components. Space is provided for the instructor to list resources and comments for the activities provided for each component. A conference record sheet is included for each of the three competencies. (PHR)

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Project No. 351359
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Special Project
PROTOTYPE TRAINING PROGRAM FOR THE PREPARATION OF CURRICULUM CONSULTANTS FOR EXCEPTIONAL CHILDREN

INSTRUCTOR'S MANUAL

for

Module 8.0 Developing / Materials and Media

Competency 8.1 The curriculum consultant should be capable of providing direction in the development of teacher-made instructional materials.

May 1974

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EC 123 143

Project Staff

Edward L. Meyen, Project Director
Reuben Altman, Co-Director
University of Missouri-Columbia

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I. Interim Report: Competency Research Phase
II. Interim Report: Module Specification Phase
III. Interim Report: Dissemination Phase

INSTRUCTOR'S MANUAL

MODULE #8 Developing / Materials and Media

MODULE ELEMENT SCOPE:

This module element is based upon two assumptions: 1) the judicious use of locally produced materials is beneficial to the teacher and the learner, and 2) the curriculum consultant can and should provide direction in the development of teacher-made instructional materials. Since you cannot lead where you have not been led, the main purpose of this module element is to assist you in understanding materials and media as they are used to meet learner objectives. To do this you must know the attributes of the various forms of media, or what they can do; you must be able to analyze instructional situations and determine how they can help reach predetermined objectives; you must be able to develop the type of material needed by the instructional situation if that material is not available commercially or does not exist. The emphasis within the activities is on you knowing what can be done and how it is done, rather than the actual doing.

MODULE ELEMENT SPECIFICATIONS:

Competency 8.1: The curriculum consultant should be capable of providing direction in the development of teacher-made instructional materials.

Competency Components:

8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.

8.1.2 To assist the trainee in identifying and describing situations in which teacher-made materials would be beneficial.

8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Conference Record

Trainee's Name ____________________

Phone ____________________

Address ____________________

Other Modules in Progress ____________________

Date: __________ Reason: ____________________

Conference Record (continued)

Date: ______________ Reason: ____

Pre-Assessment Performance	Activity Performance	Post-Assessment Performance	BEHAVIORAL OBJECTIVES TO BE ACHIEVED IN THIS MODULE ELEMENT	Cross-Reference
			8.1.1.1 The trainee shall be able to identify the capabilities of manipulatives--both realia and models.	
			8.1.1.2 The trainee shall be able to identify the capabilities of graphic materials--i.e., graphs, charts and diagrams, poster, maps and globes.	
			8.1.1.3 The trainee shall be able to delineate the capabilities of projected still images--i.e., materials for use with the opaque and overhead projectors, slides and filmstrips.	
			8.1.1.4 The trainee shall be able to delineate the capabilities of projected moving pictures--i.e., 16mm films, 8 and super 8 films, and 8mm filmloops.	
			8.1.1.5 The trainee shall be able to delineate the capabilities of display materials.	
			8.1.1.6 The trainee shall be able to delineate the capabilities of materials reproduced and/or preserved for classroom use.	
			8.1.1.7 The trainee shall be able to delineate the capabilities of audio materials including tape recordings, radio, disc records, and specialized presentations such as language master work.	
			8.1.1.8 The trainee shall be able to describe the capabilities of programmed instruction materials.	
			8.1.2.1 The trainee shall be capable of analyzing instructional situations to determine those which warrant using and developing materials.	
			8.1.2.2 The trainee shall be capable of establishing criteria to determine the feasibility of developing teacher-made materials.	
			8.1.2.3 The trainee shall be capable of selecting, given specific instructional situations, which forms of media and/or materials are appropriate.	

Performance	Activity Performance	Post-Assessment Performance	BEHAVIORAL OBJECTIVES TO BE ACHIEVED IN THIS MODULE ELEMENT (continued)	Cross-Reference
			8.1.2.4 The trainee shall be capable of identifying situations where the special needs and abilities of handicapped children make the development of teacher-made materials advantageous.	
			8.1.3.1 The trainee shall be able to develop appropriate maninulatives--both realia and models.	
			8.1.3.2 The trainee shall be able to produce appropriate graphics.	
			8.1.3.3 The trainee shall be able to produce materials for still projection--i.e., materials for use with the opaque and overhead projectors, slides and filmstrip.	
			8.1.3.4 The trainee shall be able to produce materials for motion projection, i.e., 16mm films, 8 and super 8mm films, and 8mm film loops.	
			8.1.3.5 The trainee shall be able to construct effective displays.	
			8.1.3.6 The trainee shall be able to reproduce and preserve materials for classroom use,	
			8.1.3.7 The trainee shall be able to produce audio materials including tape recordings, language master presentations.	
			8.1.3.8 The trainee shall be able to develop programmed instruction materials.	

Upon successfully demonstrating competency in a behavioral objective (through pre-assessment performance, enabling activity performance, or post-assessment performance), have a SECTraC staff member initial the appropriate box. When a behavioral objective is cross-referenced to other Module Elements, be sure to have it initialed there simultaneously.

Resource File

The following activities have resource files. Each file contains materials essential to the activity. Articles and reference materials have not been placed in resourde files. Reference materails may later be duplicated and put into resource files in order to make the modules more complete as instructional packages.

8.1.1.1.A
8.1.1.2.A
8.1.1.2.B
8.1.1.2.D
8.1.1.3.A
8.1.1.3.B
8.1.1.6.A(1)
8.1.1.6.A(2)
8.1.1.6.B
8.1.1.7.A(1)
8.1.1.7.A(2)
8.1.1.7.B
8.1.1.8.A
8.1.2.1.A
8.1.2.1.B
8.1.3.2.A(1)
8.1.3.2.A(2)
8.1.3.2.A(3)
8.1.3.2.B(1)
8.1.3.2.B(2)
8.1.3.2.C
8.1.3.3.A
8.1.3.3.B
8.1.3.3.C
8.1.3.4.A
8.1.3.4.B(1)
8.1.3.4.B(2)
8.1.3.5.A
8.1.3.7.A
8.1.3.8.A

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.

Behavioral Objectives:

8.1.1.1 The trainee shall be able to identify the capabilities of manipulatives--both realia and models.

8.1.1.2 The trainee shall be able to identify the capabilities of graphic materials--i.e., graphs, charts and diagrams, posters, maps and globes.

8.1.1.3 The trainee shall be able to delineate the capabilities of projected still images--i.e., materials for use with the opaque and overhead projectors, slides and filmstrips.

8.1.1.4 The trainee shall be able to delineate the capabilities of projected moving pictures--i.e., 16mm films, 8 and super 8 films, and 8mm filmloops.

8.1.1.5 The trainee shall be able to delineate the capabilities of display materials.

8.1.1.6 The trainee shall be able to delineate the capabilities of materials reproduced and/or preserved for classroom use.

8.1.1.7 The trainee shall be able to delineate the capabilities of audio materials including tape recordings, radio, disc records, and specialized presentations such as language master work.

8.1.1.8 The trainee shall be able to describe the capabilities of programmed instruction materials.

Competency Component: 8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.

Behavioral Objective: 8.1.1.1 The trainee shall be able to identify the capabilities of manipulatives—both realia and models.

Enabling Activities

8.1.1.1.A

The place of media in the instructional process has taken a dramatic shift in the last forty years. Prior to World War II, media was commonly looked upon as a frill which could be added if time and resources permitted; but the addition of media was in no way an integral part of the teaching/learning situation.

During World War II there was suddenly a great number of people who needed to learn a great amount of information and a number of skills in the shortest time possible—thus the use of media grew rapidly—both for large group instruction and in individualized learning situations.

Following this period, education and government combined to support and advance the effective utilization fo mediated experiences in the teaching/learning process.

While the benefits of improved meida for general education are signficant they are even more important to the education of handicapped children. The learning characteristics fo handicapped children dictate the use of multimedia packages. Consequently, it is

Resources

8.1.1.1.A

1. "Resources for Learning." Overview film, McGraw-Hill Multi-Media Kit. Available by appointment at the Instructional Media Laboratory, Industrial Arts Building.

2. Resource File 8.1.1.1.A

3. Brown, James W., Lewis, Richard B., and Harcleroad, Fred F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 361-386.

4. Meeks, Martha F. Models for Teaching. Austin: The visual Instruction Bureau, Division of Extension, The University of Texas, 1956. Pp. 4-18.

5. Wittich and Schuller. Audio-Visual Materials. New York: Harper and Brothers, 1953. Pp. 195-230.

6. Capabilities of Manipulatives

    1. Make the abstract (i.e., word symbol) concrete.

Comments

8.1.1.1.A (continued)

essential that a curriculum consultant be knowledgeable of available media and their application to instructional situations. As a curriculum consultant it is important that you understand the capabilities of the machines and materials which combine to create media in the educational enviornment.

Two orientation presentations (#1 and #2 in the resource section of this activity) are available for you; their purpose is to provide you a general frame of reference before you begin the activities which deal with the capabilities of specific mediums. These are optional materials; you may use one, both, or none, according to your need.

Manipulatives are employed at all levels of instruction; however, they represent a particularly meaningful instructional material for young handicapped children. Special Education teachers often need assistance in determining the best type of manipulative material to use for skill development and in acquiring materials applicable to their children. It is important that you not only be aware of the importance of manipulatives to instructional programs for handicapped children but that you also be familiar with the capabilities of manipulatives.

Three-dimensional materials, whether real or models, give a feeling of reality. Children, like adults, enjoy

8.1.1.1.A (continued)

6. Capabilities of Manipulatives (continued)

    2. Provide multi-sensory experience and stimulation.

    3. Can magnify.

    4. Can reduce in size.

    5. Can simplify--stress fundamental or significant features.

    6. Can be used to:
        A. Create interest, motivate.
        B. Provide facts and information
        C. Review and summarize, reinforce.

    7. Can be used with other media, but do not incorporate other mediums.

    8. Can be used with large groups to provide common experiences.

    9. Can be used for individual study and exploration.

    10. May provide a static image.

    11. May provide a movable image.

    12. Show all three dimensions of an object.

    13. May illustrate the movement which makes an object work.

8.1.1.1.A (continued)

feeling and observing the texture, size, shape and "substance" of things. In addition, real things and their models provide a multi-sensory experience, allowing the learner more channels for stimulation and a more complex and richer understanding of the reality. Best use suggests three-dimensional materials should be capable of being handled, or manipulated, by the learner.

Real things, objects and specimens, and their models, i.e., scale models, cut away models, etc., provide meaningful learning experiences since they either are or represent a controlled reality. The conditions for learning with these mediums closely approximate the conditions under which a student is to perform as he later uses or demonstrates what he has learned.

Sources #3-#5 in the Resource section all discuss three-dimensional manipulatives. Read this material; the discussion should provide you with the characteristics and capabilities of real things and their models.

A list of capabilities of manipulatives appears in the Resource section; you may make any additions, corrections or deletions you feel appropriate. Then use what you have learned to 1) define the following terms, 2) provide an example for each term, and 3) identify which of the general capabilities are appropriate to the specific types of three-dimensional mateials:

8.1.1.1.A (continued)

6. Capabilities of Manipulatives (continued)

    14. Illustrates spatial relationships.

    15. May substitute for rare, expensive, perishable or fragile things.

    16. Provide permanent teaching materials.

    17. Can show internal construction, parts of a whole.

    18. More than one allows comparisons, contrasts, and the drawing of generalizations.

Behavioral Objective Continued:

8.1.1.1.A (continued)

1. Objects

2. Specimens

3. Models
   A. Solid model
   B. Exact model
   C. Scale model
   D. Cut-away model
   E. Build up model
   F. Working model
   G. Mock-up

Competency Component: 8.1.1 To assist the trainee in delineating the potentialities of the various forms of teacher-made materials.

Behavioral Objective: 8.1.1.1 The trainee shall be able to identify the capabilities of manipulatives--both realia and models.

Activity No.	*Evaluation Criteria*
8.1.1.1.A	The exact examples the trainee gives are not important except that they fit the definitions--so only illustrations are given here. Most important is that the trainee realize the particular capabilities of the materials--the things the real and representational can do uniquely.

1. Object: real thing which has been removed as a unit from its natural setting--(examples--flowers, eggs, coins). Capabilities--very concrete, multi-sensory, create interest, provide facts and information, review and summarize, provide common experience, encourage inaction, may be static (i.e., a pattern) or mobile (animal), show all dimensions, allow for comaprison and contrast.

2. Specimens: typical object or part of an object which has been removed from its natural setting--same capabilities as objects.

3. Models: a recognizable three dimensional representation of a real object.

   All models have the following capabilities: make the abstract concrete, provide multi-sensory experience and stimulation, create interest, provide facts, review and summarize, show three dimensionals of an object, provide permanent and storable materials.

   The particular capabilities of each type of model are:

   A. Solid model - represents external features only--used to give a general impression with distracting details left out (i.e., boat or train, animals, rods for counting). Can magnify, reduce, can simplify, does not incorporate other media, use with groups depends on size, may be used for individual study, may provide a static image, may substitute for real object, more than one may allow comparisons.

   B. Exact model - represents an object as accurately as possible in size and other details, although it may be made of materials different from those of the original. Use with group depends on size of model and size

Competency Component: 8.1.1 To assist the trainee in delineating the potentialities of the various forms of teacher-made materials.

Behavioral Objective: 8.1.1.1 The trainee shall be able to identify the capabilities of manipulatives--both realia and models.

Activity No.

Evaluation Criteria

8.1.1.1. (continued)

of group, can be used for individual study, may provide a static image (model of a bird) or movable image (model train), illustrates spatial relationships, may substitute for real object, more than one allows for comparisons.

C. Scale models - exact model only mathematically magnified or reduced. Same as exact models except may enlarge or reduce.

D. Cut away model - a cross-section model which shows the the object with some of its surface removed. Can magnify, can reduce, can simplify, may be appropriate for large groups or individual instruction, may be static, may illustrate movement, illustrate spatial relationships, show internal construction.

E. Build-up model - represents a whole object or a section of it, but is made up of smaller parts which fit together and can be taken apart (human torso), can magnify, can reduce, can simplify, can be used with groups or individually, illustrates spatial relationships, can show internal construction, parts of a whole.

F. Working model - representation which features working parts, but the external features are also included (draw bridge), magnify, reduce, large groups and individuals, movable image, illustrate spatial relationships, illustrate movement, internal construction substitute for real.

G. Mock-up - represents some elements of a real experience, but is an unnatural layout of real parts or assemblies in a system or process. More abstract than (F) but simplified.

Competency Component: 8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.

Behavioral Objective: 8.1.1.2 The trainee shall be able to identify the capabilities of graphic materials—i.e., graphs, charts and diagrams, posters, maps and globes.

Enabling Activities	***Resources***	***Comments***
8.1.1.2.A You will find the use of media helpful in your consultation relationship with teachers as well as in the instructional situation with children. Visual illustrations take many forms ranging from video tapes to charts. Graphics are among the most common of the communication media. The word graphics comes from the Greek "graphikos" which included painting and drawing, and the verb "graphein" meaning to write as well as to represent by means of lines. The term today implies materials which use closely related forms—symbols, words, pictures, or drawings—to communicate facts and ideas clearly and forcibly. The instructional values of graphic materials lie in their capacity to attract attention and convey facts and ideas in a condensed, summarized form. Graphs are a useful way of presenting numerical data. The graph is a flat picture which employs dots, lines, or pictures to visualize numerical data. Brown, Lewis, and Harcleroad discuss the types of graphs, their advantages, their uses, and their capabilities. Read the pages identified in the Resource	8.1.1.2.A 1. Brown, J. W., Lewis, R. B., and Harcleroad, F. F. <ins>AV Instruction: Media and Methods</ins>. New York. McGraw-Hill Book Company, 1969. Pp. 159-166. 2. Resource File 8.1.1.2.A	

8.1.1.2.A (continued)

Resource File 8.1.1.2.A contains examples of the four most commonly used graphs: the line graph, the bar graph, the circle graph, and the pictorial graph.

Also included is a data sheet from which you are to construct one example of each of the four types of graphs. Your graphs should be sketches rather than polished products, but should demonstrate your understanding of the different way in which each type of graph summarizes these data into more easily understood form--the major capability of graphs.

8.1.1.2.B

Charts are frequently used and prepared by Special Education teachers. While charts may vary in size (anywhere from 15 inches by 20 inches to 40 inches by 60 inches) and in purpose, they have certain common charateristics:

1. They may be done in black and white or color.
2. They present a static image.
3. They may mix compatible symbols, i.e., drawings, pictures, words, graphs, etc.
4. Their purpose is to visualize an idea or concept which would be more difficult to understand if treated only by words.

8.1.1.2.B

1. Alcorn, M., Kinder, S., and Schunert, J. Better Teaching in Secondary Schools (Rev. Ed.). New York: Holt, Rinehard and Winston, 1964. Pp. 243-246.
2. Wittich and Schuller. Audio-Visual Materials. New York: Harper and Brothers, 1953. Pp. 92-96, 110-120.
3. Brown, J. W., Lewis, R. B., and Harcleroad, F. F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 167-171.
4. Resource File 8.1.1.2.B

8.1.1.2.B (continued)

5. They provide a semi-permanent display material in the classroom and may be utilized as a mnemonic or a reference material.

6. They should be designed to illustrate only one or at the most a few main points; otherwise, crowded charts become confusing.

7. Charts may be used to convey feelings and attitudes as well as facts and information.

Resource File 8.1.1.2.B contains slides which illustrate the main types of charts: experience charts, organizational charts, time charts, and issue, map, and pictorial charts. Look at these even if you think you already know the types of charts.

Read the selections listed in the resource section; as you read, notice that all charts have some characteristics in common, yet differ in the type of subject matter presented. When you have completed the assigned readings review the slides. Classify each chart according to its type (i.e., experience) and describe what use each makes of the common characteristics listed in the activity column. Identify at least two additional capabilities common to all the charts illustrated.

8.1.1.2.C

Another way to know what a chart is is to know how it differs from a poster. The popular and well known poster of Mark Spitz is an excellent example of the common substitution of the term poster for what is in fact a chart. The data (Spitz's record shattering times) is the primary information contained in the chart. Also included are a view of the suit he wore, his face, his medals, and his mustache. When the data is removed from the bottom of the chart, it becomes a poster.

A chart presents information at a glance. Emphasis is upon clarity, economy, and forcefulness of expression.

In contrast, a poster presents only a single concept presented with a maximum use of pictures and a minimum of print.

For example, urging a staff member to make Thermofax transparencies could be done with a large, colorful poster depicting a happy teacher using overhead projection transparencies to help happy students learn happy things in a happy enviornment (get the picture?).

When the teacher goes to the Thermofax machine, she will find a chart behind it using simplified line drawings and printed directions to explain the steps in making a transparency. To demonstrate to your instructor that you understand the characteristics of a chart and how it differs from a poster,

8.1.1.2.C

Weighing parcels to determine postal rates, properly requisitioning supplies, correctly storing teaching equipment, etc. are not too trivial examples which could be worked up into charts or posters.

8.1.1.2.C (continued)

select any common teacher or curriculum consultant task and sketch a poster encouraging action and a chart explaining how the action should proceed.

8.1.1.2.D

Although maps and globes combine two- and three-dimensional materials and could be placed under flat pictures or models, they are discussed here under graphics because they delineate by symbols, words, and drawings, and employ lines in their representation. They are placed here together because they are so often used together since each fulfills a particular instructional function which the other cannot easily serve.

For example, globes are better for observing spatial relationships and relative sizes of continents and points within continents. However, the size limitations of globes make it difficult to use them for anything less than principal cities, much less transportation routes and detailed topographical features. Therefore, globes are usually used for small group and individualized instruction on general features of the planet.

Maps, on the other hand, can be obtained in almost infinite variety of sizes and types to suit both large and small group instructional purposes. When greater magnification is needed,

8.1.1.2.D

1. Wittich and Schuller. Audio-Visual Materials. New York: Harper and Brothers, 1953
2. Brown, J. W., Lewis, R. B., and Harcleroad, Fred F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 176-195.
3. Resource File 8.1.1.2.D

8.1.1.2.D

All things considered, maps are b far the most useful method for visualizing the earth's features.

8.1.1.2.D (continued)

maps may be reproduced as slides or overhead projector transparencies.

The two readings in the Resource section discuss maps and globes in some detail; scan these materials to find further shared visual characteristics of maps and globes and the unique contributions each can make to instructional situations.

Resource File 8.1.1.2.D contains a road map which could be used in a Special Education classroom. List two limitations of this map that could be remedied by adding a globe to the same situation.

Competency Component: 8.1.1 To assist the trainee in delineating the potentialities of the various forms of teacher-made materials.

Behavioral Objective: 8.1.1.2 The trainee shall be able to identify the capabilities of graphic materials--i.e., graphs, charts and diagrams, posters, maps and globes.

Activity No. *Evaluation Criteria*

8.1.1.2.A

The first graphic material discussed in 8.1.1.2 is the graph. Within the activity, the unique contribution of graphs--flat pictures which use dots, line, or pictures to visuulize numerical data--should be emphasized. Individual evaluations of the four graphs may differ; however, the trainee should be able to distinguish criteria used in evaluations. Discussion with the trainee should reveal his identification and ability to use the following capabilities or criteria:

1.. Attract attention.
2. Convey information instantly.
3. Condense or summarize information.
4. Show numerical relationships.
5. One scale graph is easier to understand than two and should be used with slower students.
6. Circle graphs should be used to compare parts to a whole.
7. Bar graphs should be used to compare sizes of parts to the whole or magnitude of similar items at different times.
8. The single linear bar graph is easier to read than two- and three-dimensional ones.
9. Bar graphs should be clearly labeled.
10. The bars of a bar graph should generally be darkened.
11. Line graphs should be used to present statistical data involving time and amount relationships.
12. Points should be clearly indicated on the graph.
13. Pictorial graphs allow the barrier of reading words to be overcome.
14. The symbols used in pictorial graphs should be self-explanatory (easily recognizable with no need for explanation).
15. Pictorial graphs should be simple.
16. Pictorial graphs show approximate values and should not be used when fine comparisons are needed.

You will be able to use these same criteria in evaluating the assignment for this activity-the graphs the trainee develops from the data sheet. Be sure the graphs are accurate and the most appropriate graph format is used.

Competency Component: 8.1.1 To assist the trainee in delineating the potentialities of the various forms of teacher-made materials.

Behavioral Objective: 8.1.1.2 The trainee shall be able to identify the capabilities of graphic materials--i.e., graphs, charts and diagrams, posters, maps and globes.

Activity No. *Evaluation Criteria*

8.1.1.2.B

The capabilities of charts are given the trainees in the Enabling Activity section of this activity; slides of different charts are available in the Resource File. The product the trainee is to produce is a classification of each slide chart according to type, design, and capabilities. A summary of the necessary information on each chart follows:

1. Tabular chart-time chart - static image - used capabilities 1,2,4,6
2. Time line chart, also a pictorial chart - static (although could be produced as a sequence chart - 1,3,4,5,6,7 to a degree at least
3. Flow chart - organization chart - pictorial chart - (also a sequence chart if desired) -1,4,5,6
4. Issue chart - organizational chart - stream chart - 1,2,3,4,5, 6,7
5. Organizational chart - tree chart - capabilities 1,2,3,4,5,6
6. Sequence chart - flip chart - 1,3,4,5,6
7. Experience chart - 1-6
8. Learning chart - 1-6 has too much for 1 chart
9. Map chart 1-6

Additional capabilities might include the ability to motivate, to provide small and large group presentations, easy storage and retrieval, etc.

8.1.1.2.C

A distinction has been made through this activity between charts and posters--the objective of the former being to present information clearly and forcefully, the latter to present convey emotion as well as information almost totally through pictorial symbols. To illustrate his understanding of the difference in intent and capability, the trainee is asked to develop a poster and a chart, both on the same topic. The emphasis is upon content, not upon the finished product. Evaluation should be made upon the poster sketch as motivational, stimulating, and immediately understandable. The chart sketch should be clear, accurate, forceful, and convey the necessary information.

Competency Component: 8.1.1 To assist the trainee in delineating the potentialities of the various forms of teacher-made materials.

Behavioral Objective: 8.1.1.2 The trainee shall be able to identify the capabilities of graphic materials--i.e., graphs, charts and diagrams, posters, maps and globes.

Activity No. — *Evaluation Criteria*

8.1.1.2.D

The discussion of maps and globes in the Enabling Activity section, as well as the assigned readings listed in the resource section, should give the trainee an understanding and appreciation of the capabilities of maps and globes. This awareness of the capabilities of the two mediums should be evident in the completed assignment for this activity--the limitations of the maps which could be remedied by adding a globe to the same situation. The following information, in some form, should be seen in the trainee's report:

Shared characteristics:
1. Both provide location data
2. Both reduce mass to workable size
3. Both use symbols to convey data
4. Both are produced by manufacturers who control and select the content to be included

Globes:
1. Data is usually limited to political information and surface features
2. Presents three-dimensional representation
3. Only relatively accurate map—because of round character of both word and globe
4. Only half may be seen at one time
5. Can be used by small groups only because of their size
6. Are expensive to buy and difficult to produce
7. Usually use representative colors
8. May be a relief globe and provide tactile information

Maps:
1. Data may be highly specialized
2. Presents flat representations
3. Projections are distorted due to the flat presentation of round surfaces
4. By flattening surface, all may be seen at once
5. Can be enlarged, reproduced, preserved quickly and easily for large group or individual instruction
6. Different types of maps use different symbols, and legends

Competency Component: 8.1.1 To assist the trainee in delineating the potentialities of the various forms of teacher-made materials.

Behavioral Objective: 8.1.1.2 The trainee shall be able to identify the capabilities of graphic materials—i.e., graphs, charts and diagrams, posters, maps and globes.

Activity No. — *Evaluation Criteria*

8.1.1.2.D (continued)

Capabilities of maps and globes:

1. Maps can be enlarged to present information to groups or reduced for individual instruction.
2. Globes are usually too small to provide sufficient detail for group instruction.
3. Maps can show the entire world at one time (though not without some distortion).
4. Globes show only a portion of the world at one time.
5. Maps are available for numerous special purposes (i.e., the distribution of natural resources) while globes are standard and more inflexible.
6. Direction, distance, shape and area are all accurate on a globe.
7. Flat maps always distort to some extent.
8. Maps and globes are usually highly abstract.
9. Usually the symbols on a map bear little resemblance to what they represent.
10. Globes large enough to be seen by the entire class are very expensive.
11. Large globes and maps are difficult to store.
12. Some globes and maps can be written upon, drawing attention to single ideas one at a time.
13. Maps and globes often present a great deal of information at once, making them either stimulating or distracting and confusing.
14. Maps and globes visualize abstracts.
15. Maps may be enlarged or simplified for easier comprehension.
16. Relief maps offer tactile as well as visual stimulus.
17. Maps may be presented in a variety of mediums (charts, transparencies, opaque projection) adding to their versatility.
18. Wallmaps are designed to present major features which can be seen by the whole class.
19. Type size, background contrast, color, variations in type size can all influence legibility and hence comprehension.
20. Maps and globes blend well with the use of other instructional and experiences.

Competency Component: 8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.

Behavioral Objective: 8.1.1.3 The trainee shall be able to delineate the capabilities of projected still images--i.e., materials for use with the opaque and overhead projectors, slides and filmstrips.

Enabling Activities	*Resources*	*Comments*
8.1.1.3.A Some media require the use of machines; thus it is important to know the capabilities of these forms of media as well as to know how to operate the equipment. While your role as a curriculum consultant may not require you to instruct teachers in the use of such equipment, it is essential that you be familiar with the operation of media equipment and their use for maximum instructional benefit. The opaque projection system and the overhead projection system are recognized by the Association for Educational Communications and Technology as necessary "to meet the multi-media approach which good teaching and effective learning require." The Standards for School Media Programs lists as basic one opaque projector per 25 teaching stations or one per floor in multi-floor buildings and one overhead projector per teaching station and two per media center. Advanced specifications are one opaque projector per 15 teaching stations plus two per media center. The one to twenty-five ratio of opaque projectors to overhead projectors	8.1.1.3.A 1. Standards for School Media Programs. Chicago; Washington, D.C.: American Library Association and National Education Association, 1970, p. 45 2. Brown, James W., Lewis, Richard B., and Harcleroad, Fred F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1961. Pp. 543-549, 213-214, 239-243. 3. Smith, R. E. The Overhead System: Production, Implementation, and Utilization. From Bridges for Ideas. The University of Texas: Visual Instruction Bureau, Division of Extension. 4. McGraw-Hill Media Kit. The Opaque Projector. (Available at the IML.)	8.1.1.3.A It is assumed you have worked with both of these machines and are familiar with their operation. If you are not, the activity section directs you to two film loops available in the Media Laboratory. Watch these films. Then go to a media facility such as the Instructional Media Laboratory and work with the projectors until you feel competent in their operation.

8.1.1.3.A (continued)

frequency with which teachers use these systems in most schools. The ratio should not be taken as an indication of the instructional value of each projection system. As a matter of fact, the capabilities of these systems are distinctly different: what one can do, the other cannot.

It is important to recognize that a projection system is composed of a number of components; some of them are obvious, others are likely to be overlooked, and thus make it unlikely that the system can be used effectively. As a curriculum consultant you can be of valuable service to teachers by advising them of both deficiencies in the system and additions to the system which can make it a more effective instructional tool.

The following is a list of the basic components of an opaque projection system:

1. The opaque projector
2. Projection screen
3. Room darkening shades or blinds
4. Projector cart or stand
5. Dry mount press
6. Heat sheet or pressure plate
7. Paper cutter
8. Supplies, including dry mount tissue, laminating film, poster board.

8.1.1.3.A (continued)

If you are not already familiar with the operations of the opaque projector, view the loop film entitled "The Opaque Projector" (3.5 minutes). The assigned readings will familiarize you in detail with the operation and function of the other components in the system. For the moment you need to know that the opaque projector is capable of projecting flat graphics or three-dimensional objects in color without any intermediary processing.

In contrast, the overhead projection system cannot project three-dimensional objects except as silhouettes and cannot project graphic materials unless they are transparent. The requirement that materials be transparent means that intermediary processes must be accomplished to ready materials for projection. Consequently, the overhead projection system includes components not necessary with the opaque projection system. Among the following components of the overhead projection system you will recognize some as being necessary for the production of transparencies:

1. Overhead projector
2. Projection screen
3. Thermal copier
4. Photographic copier: wet or dry
5. Supplies including: writing instruments, coloring instruments, clear acetate, self adhesive acetate, transparency mounts, hinges.

8.1.1.3.A (continued)

If you are not familiar with the operation of the overhead projector view the 8mm film loop "The Overhead Projector". You may notice that room darkening equipment was excluded from the above components; one of the major capabilities of the overhead projection system is tis ability to project adequate, large sized images in a normally lighted classroom. A projection cart is not necessary; the overhead projector is a short throw projector (another of its capabilities) and can be used in the front of the room, often placed on the teacher's desk.

The most common use of the overhead projector is as a substitute for the less versatile chalkboard; the teacher writes directly on clear acetate prepared beforehand or impromptu during the class session. More sophisticated transparencies are produced by using any of the copy machines.

The various components of the overhead system are discussed in the assigned readings listed in the Resource section of this activity.

The curriculum consultant can be of valuable assistance to the teacher by advising him of the extreme versatility of the overhead projector while reminding him that it is not a substitute for companion media like the opaque projector.

Behavioral Objective *Continued:*

8.1.1.3.A (continued)

To demonstrate that you can identify the capabilities of each system, go to Resource File 8.1.1.3.A. Label the capabilities listed there as appropriate to the overhead system, the opaque system, or both.

8.1.1.3.B

Here, as in the previous activity, you should recognize that the photographic slide projector and the filmstrip projector are each one part of a projection system. The complete system would include projection stands, screens, room darkening equipment, a camera and photographic supplies.

Of the two systems, the slide projection system lends itself better to teacher production of materials. New cartridge loading slide cameras make successful production for even the beginner. This is not true for filmstrip production; filmstrips cannot be produced using ordinary 25mm or 126 cartridge film cameras. Filmstrips are taken on half-frames of 35mm film and require special purpose half-frame cameras. Consequently, most filmstrips are produced in photo laboratories by copying existing 2 X 2 slides.

The curriculum consultant should advise teachers to make filmstrips only from those 2 X 2 slide sets which have an unvarying presentation order; a filmstrip is always shown in a linear

8.1.1.3.B

1. Resource File 8.1.1.3.B

   A list of the Capabilities of Slide Presentations and Filmstrips

2. In addition to the slide presentations you have viewed in the modules, a slide presentation, "An Introduction to the IMC," is avaiable in the UMC Special Education Instructional Materials Center.

   Several filmstrips are available in the Instructional Media Laboratory. Recommended are:

   "Finding Out How Plants Grow"

   "The Elves and the Shoemaker"

Behavioral Objective Continued:

8.1.1.3.B (continued)

sequence and cannot be altered as easily as can slides.

Other capabilities of these media systems are outlines in Resource File 8.1.1.3.B. Read this material, keeping in mind that the major characteristics of a filmstrip projection system are low-cost materials projected in a fixed sequence with less opportunity for teacher production, and that the slide projection system is characterized by high materials cost with greater flexibility in presentation and more opportunity for teacher production.

For these reasons, plus the fact that slide projection systems are easily portable the curriculum consultant should give serious consideration to the use of this medium in his own program promotional and advisory work.

If you are not familiar with filmstrips and/or slide presentations, available examples are listed in the Resource section for your benefit.

Select a topic which would be suitable for teaching to handicapped children. Propose that it be produced as either a slide set or filmstrip. Defend your choice in a brief written statement citing those capabilities which support you media selection.

Competency Component: 8.1.1 To assist the trainee in delineating the potentialities of the various forms of teacher-made materials.

Behavioral Objective: 8.1.1.3 The trainee shall be able to delineate the capabilities of projected still images--i.e., materials for use with the opaque and overhead projectors, slides and filmstrips.

Activity No.	*Evaluation Criteria*
8.1.1.3.A	An extensive discussion of both the overhead projection system and the opaque projection system accompany this activity. Upon completing the required readings the trainee is given a sheet containing capabilities and/or characteristics of the overhead system, or both and is asked to identify each.
8.1.1.3.B	This activity deals with two similar types of still picture projection--a slide series and a filmstrip. After reading the required material the trainee is asked to select a topic suitable for teaching to handicapped children and propose that it be produced as either a slide series or a filmstrip. The trainee selection and justification of either medium is the important consideration in evaluating this exercise. His written statement defending his selection should include most of the comparisons listed below:

Slides:

1. More expensive to produce than filmstrips
2. Each slide is handled independently, room for error increased
3. Slides may be used in any order at any time—very flexible
4. As each slide operates independently, more recent or better slides may replace previously used slides without affecting the total presentation
5. Slides have good color reproduction because they are individually processed

Filmstrips (35 mm film):

1. Inexpensive to produce
2. Easy to handle--the projector is simple and once the film is inserted, almost nothing can go wrong
3. Within the filmstrip, the order of frames is permanent and cannot be changed
4. Filmstrip frames cannot be replaced individually--one frame out-of-date or harmed invalidates the whole strip
5. Filmstrips are processed with a mean exposure setting and may vary in quality among individual slides.

Resource File 8.1.1.3.A

CAPABILITIES OF OVERHEAD AND/OR OPAQUE PROJECTION SYSTEMS

This Resource File contains a list of capabilities characteristic of either the overhead projection system (OVP), the opaque projection system (OPP), or both. Place the initials of an appropriate system(s) (OVP, OPP) beside any capability which is characteristic of the medium.

OVP 1. The material is seen on the projector by the instructor exactly as students see it on the screen.

OPP 2. Even when enlarged several times by projection, many details may not be large enough or clear enough to be seen by viewers at a distance.

OPP 3. Anything printed, drawn, or written on a flat surface can be projected.

OVP 4. Requires intermediary processing of material for projection, but there are a variety of simple, inexpensive processing methods.

OVP 5. Lines may be drawn with permanent or non-permanent pens, allowing for storage and permanency, immediate modification or development, or any combination of the two.

BOTH 6. The projector is mechanically simple.

OVP 7. The projector is simple to operate.

DPP 8. Most of the materials used are universally available and inexpensive or free.

OVP 9. Additional sheets may be used as overlays on a basic graphic to separate processes and complex ideas into elements and present them in step-by-step order.

BOTH 10. Illustrations provide visual symbols.

OVP 11. The projected image is clear and bright.

OPP 12. A projection screen or large wall area of white or nearly white must be available for satisfactory viewing.

OVP 13. In the teaching/learning sequence the system is useful for the presentation of an idea or process which can be reduced to a limited number of stages which must, at the same time, be seen in visual relationship with each other.

OPP 14. The projector can enlarge or reduce illustrative materials and transfer the image so that it may be copied on other materials, i.e., chalkboard, charts.

Resource File 8.1.1.3.A (continued)

OVP 15. The projection surface is large (10" X 10") allowing the teacher to write information easily and immediately.

OVP 16. Visuals can be projected large enough to be seen by groups of almost any size.

OPP 17. Images are projected in full natural color.

BOTH 18. Covering part of the basic graphic with an opaque material allows for progressive disclosure--control of flow of information.

DPP 19. The teacher usually stands at the rear of the classroom to control the material within the projector.

OVP 20. The projector is used in front of the room by the instructor, allowing him to remain in close contact with students.

BOTH 21. Visual stimulus can be controlled.

OVP 22. Either transparent or silhouette figures can be manipulated.

OPP 23. Almost any flat surface can be projected--almost limitless numbers and kinds of materials can be projected without special adaptation or preparation:

(flat printed materials: pictures from magazines, maps, tests, etc.)
(books: either text or illustration)
(three-dimensional objects: coins, leaves, insects)

OVP 24. The projector can be used in a lighted room--requires no special darkening equipment.

BOTH 25. Provides a common visual experience to any viewing group.

OVP 26. The basic graphic may be written upon, pointed to by the instructor during presentation.

OPP 27. Must be used in a darkened room for light reflection to be effective.

BOTH 28. The projector produces a static image.

OPP 29. The projected image is static; however, simple movement or progressions can be manipulated by handles which extend outside the machine.

BOTH 30. The instructor has control over the sequencing, timing, and manipulation of materials.

Competency Component: 8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.

Behavioral Objective: 8.1.1.4 The trainee shall be able to delineate the capabilities of projected moving pictures--i.e., 16mm films, 8 and super 8mm films, and 8mm filmloops.

Enabling Activities	*Resources*	*Comments*
8.1.1.4.A The curriculum consultant should be aware of the differences among 16mm motion pictures, 8mm motion pictures and television. Particularly important are the differences in availability of commercially produced material, quality of the projected image, and opportunities for local production. 16mm motion pictures are the oldest widely used audiovisual materials. Consequently, more high quality information is available from commercial producers, film libraries, and resource centers. Teachers generally are aware of some sources for securing films; however, the curriculum consultant can perform a valuable service by advising them of up-to-date special film services such as captioned films for the deaf. Additional film sources come to the attention of the curriculum consultant who reads educational technology publications like Media and Methods, and AV Instruction as well as media news in the Special Education Journals. 16mm motion pictures are generally intended for large group showings of ten to fifty minutes udration. Film	8.1.1.4.A 1. Brown, James W., Lewis, Richard B., and Harcleroad, Fred F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 263-293, 461, 475-483. 2. Wittich and Schuller. Audio-Visual Materials. New York: Harper and Brothers, 1953, pp. 349-452. This volume, although somewhat dated, offers some excellent reading in this area. 3. Kemp, J.E. Planning and Producing Audiovisual Materials. San Francisco: Chandler Publishing Company, 1963. Pages 8-12 offer a brief, but insightful, description of advantages and limitations of various forms of media. 4. "Television." 16mm film, McGraw-Hill Media Kit. Available at Instructional Media Laboratory.	

8.1.1.4.A (continued)

In contrast, 8mm motion pictures, using automatic simply operated cameras and low cost films offer great production opportunities. Commercially produced 8mm motion films are generally of shorter duration than 16mm films and are packaged on both reels and in closed loop cartridges. At the present time, few films are available on reels simply because they would duplicate in function existing 16mm films. Literally thousands of 8mm loop films are available from both commercial producers and larger resource centers. Loop films are popularly known as "single-concept" films: because of their short length (3-4 minutes) and their tendency to emphasize the development of one idea or skill. As opposed to 16mm films, 8mm films are used almost exclusively for small group and individualized instruction.

Television, as used in instruction, seldom duplicates the functions of either 16mm or 8mm motion pictures. Although it could quite obviously show motion pictures or produce its own original film-like programs, its noticeably poorer quality picture makes it a poor and unnecessary substitute.

Television in instruction is at its best when its own peculiar capabilities are capitalized upon. Among the more important capabilities for special educators are immediate recording and play back and the ability to erase and rerecord making television an ideal medium

8.1.1.4.A (continued)

for candid and clinical recordings. A capability not to be overlooked is semultaneous sound recording which offers a distinct advantage over photographic motion pictures.

The resource section of this activity contains materials which you should review in you study of 16mm films, 8mm films, and television. They will help you to form an understanding of the capabilities of these mediums. Therefore, you are to study them all.

You have seen by now many examples of 16mm motion pictures and probably would not profit from previewing more. 8mm motion pictures have been used in activity 8.1.1.1 and you should be able to conceptualize other films which would benefit from the same type of treatment. However, you have probably not seen television used for its unique and special capabilities, particularly for special education. Considering what television can do for the curriculum consultant and the teachers he advises, propose the purchase of two television cameras and a recorder, justifying them on the basis of one candid and one clinical application of the system.

Competency Component: 8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.

Behavioral Objective: 8.1.1.4 The trainee shall be able to delineate the capabilities of projected moving pictures--i.e., 16mm films, 8 and super 8mm films, and 8mm filmloops.

Activity No.	*Evaluation Criteria*
8.1.1.4.A	The trainee was to justify the purchase of televison cameras and a recorder on a clinical basis and a candid basis. Responses should resemble the following: The use of television is an economical approach as it allows for: 1. recording 2. review and 3. reuse in either a rehersed settings or in natural unplanned situations.

Competency Component: **8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.**

Behavioral Objective: **8.1.1.5 The trainee shall be able to delineate the capabilities of display materials.**

Enabling Activities	*Resources*	*Comments*
8.1.1.5.A Many teachers find it necessary to draw upon their own resources as a means of incorporating media into their instruction. This frequently takes the form of self-prepared displays. Although curriculum consultants are seldom called upon for advice on how to build a display, they can be of assistance to teachers by offering suggestions as they observe opportunities where displays might add to the instructional program. Consultants will also find that a knowledge of types and capabilities of displays will be useful when programming activities to accompany curriculum content. Displays may be used in the classroom in a variety of ways, through a number of mediums, to fulfill several objectives. While many instructional materials are more spectacular and require an array of electronic equipment, displays are simple, require little special equipment, utilize inexpensive materials, and are flexible enough to handle a myriad of educational tasks. Displays may be permanent, semi-permanent, or temporary, depending upon	8.1.1.5.A Chalkboard: Once black slate, now commonly a composition material available in a variety of pastel shades. It can be written upon with white or colored chalk, erased and used again. Most schools have permanently installed chalkboards, some also have portable boards for additional use. Some new chalkboards are equipped with a steel base so that magnets will adhere to its surface and papers, pictures and objects will adhere to its surface without tacking or taping. Thus, both chalk work and bulletin board type materials may be placed on the same surface and may be used together. Bulletin Boards (tack boards): A composition board which is porous enough to allow tacks to be placed in it to support display materials. Most classrooms have some permanent bulletin board space; teachers may construct additional bulletin board space; teachers may construct additional bulletin boards easily and inexpensively if they desire. Felt boards (flannel boards): A felt-covered flat surface which capitalizes on the principle that flannel, felt,	8.1.1.5.A Starred (*) items indicate films available through the University of Missouri Film Lending Facility. Since there will be a rental fee on these films, see your advisor to arrange a time when several trainees can view these films together.

8.1.1.5.A (continued)

the materials used and the instructional objectives they meet.

The five most commonly used display boards are: chalkboards, bulletin boards, felt boards, hook and loop boards, and magnetic boards. While each has peculiar capabilities, each can be used to interest, motivate, and stimulate, inform, influence attitudes, review, summarize and reinforce learning. Working definitions of the five common display boards are given you in the resource section of this activity.

If you are not familiar with any of the types of display boards, optional reading and viewing materials are included in the Resource section which deal with each. Use whatever materials you feel will be beneficial to you.

Sketch a recalled or newly observed bulletin board in a school setting. Your sketch may be simple but should be complete. Sketch or describe how this display would or could be altered as: 1) a chalkboard display, 2) a hook and loop board display, and 3) a magnetic or flannel board display (choose one). Your responses should demonstrate your understanding of the capabilities of each display board.

wool, and cotton will adhere to like surfaces. This allows the teacher to place letters, words, and cutouts made from felt upon the surface and they will adhere to it.

Hook and Loop Boards: A board covered with nylon loop pile to which small strips of nylon hoots will attach. (Velcro--trade name--now being used to seal packages, substitute for zippers, etc.). The advantage of the hook and loop board is that pictures, cardboard lettering, flannel cutouts, and three-dimensional objects can be attached to the board since it can support substantial weight.

Magnetic Boards: Steel backed boards which allow pictures and objects to be hung with magnets.

Haney, J. B., and Ullmer, E. J. Educational Media and the Teacher. Dubuque: Wm. C. Brown Co., 1970, Pp. 84-96.

MacLinker, J. Instructional display boards. In Bridges for Ideas. University of Texas: Visual Instruction Bureau, Division of Extension, 1968. Preface. Pp. 1-38.

Lockridge, J. P. Better bulletin board displays (#11). In Bridges for Ideas. University of Texas: Visual Instruction Bureau, Division of Extension, 1966. Pp. 1-10.

* "Better Bulletin Boards"

* "Display and Presentation Boards"

8.1.1.5.B

While displays may use flat, two-dimensional, and three-dimensional materials, exhibits usually rely most heavily upon three-dimensional materiials. Dioramas, and special exhibits fall in this category. The resource section contains excellent reading on those capabilities of exhibits which differ from the capabilities you recognized in display boards. As you read you will notice that exhibits are frequently built around or in front of a display board which serves as the exhibit's backdrop. Display boards from which objects can be suspended or attached are particularly useful.

8.1.1.5.A (continued)

McGraw-Hill Media Kit #2. Slide presentation and Script: "Display Surfaces," available through the Instructional Materials Laboratory by appointment.

8.1.1.5.B

Lockbridge, J. P. Educational displays and exhibits (#9). In Bridges for Ideas. University of Texas: Visual Instruction Bureau, Division of Extension, 1966, Pp. 1-10, 17-21.

Competency Component: 8.1.1 To assist the trainee in delineating the potentialities of the various forms of teacher-made materials.

Behavioral Objective: 8.1.1.5 The trainee will be able to delineate the capabilities provided by display materials.

Activity No.	*Evaluation Criteria*
8.1.1.5.A	The five most commonly used display boards--chalkboards, bulletin boards, felt boards, hook and loop boards, and magnetic board--are reviewed in the resources given for this activity. To demonstrate an understanding of the capabilities of each the trainee is asked to sketch a bulletin board and then alter it for each of the following: (1) a chalkboard, (2) a hook and loop board, and (3) a magnetic or flannel board display. The alterations show evidence and appreciation for the unique capabilities of each (i.e., a three-dimensional object hung on the hook and loop board). The evaluation of the activity should be made in terms of the trainee's ability to adapt materials to and effectively utilize the different mediums.
8.1.1.5.B	Some of the capabilities of exhibits over displays might include: 1. A larger, more dramatic presentation. 2. A more "involving" capability. 3. The use of exact models and replicas for accurate representation. 4. The extensive use of three-dimensional objects. 5. More material is often included.

Competency Component: 8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.

Behavioral Objective. 8.1.1.6 The trainee shall be able to delineate the capabilities of materials reproduced and/or preserved for classroom use.

Enabling Activities	*Resources*	*Comments*
8.1.1.6.A Many materials used in the teaching/learning situation are worthy of either reproduction and/or preservation for classroom sue. Inexpensive materials, i.e., magazine pictures, newspaper ads, etc. are meant to receive minimal use and are not sturdy enough to last through numerous showings. An important question you should ask is if the material is worthy of reproduction or preservation--does it meet the standards of relevance, timeliness, and vitality? If the answer is yes, the next problem is to decide in what form the material is to be reproduced and preserved. You have already worked, in this Component, with some of the mediums which can be used to reproduce materials: slides, transparencies, filmstrips, film loops, the opaque projector. These mediums reproduce and preserve the original material in another form--i.e., a picture, placed upon the opague projector, may be enlarged, or reduced, for reproduction on a chart or the chalkboard. This activity, is therefore, limited to the preservation or reproduction of materials in their	8.1.1.6.A 1. Resource File 8.1.1.6.A(1) 2. Resource File 8.1.1.6.A(2)	

8.1.1.6.A (continued)

Although the discussion will center upon pictures, remember that other materials such as newspapers, text pages, maps, etc. may be similarly utilized.

The three main ways to mount and preserve flat materials are: dry mounting, cloth mounting, and laminating.* One of the capabilities of preserved materials is obvious--it extends the teaching life of the material. Resource File 8.1.1.6.A(1) contains samples of topical materials preserved by these methods. Examine one sample of each method and write three capabilities which these materials have which they did not have in their original form.

After you have completed your descriptions, go to Resource File 8.1.1.6.A(2) which contains a list of capabilities of preserved materials. Check your observations against the list, making special note of any you overlooked.

As a final task select five illustrations from any popular magazine which you think would be a value in the instruction of handicapped children. Submit the entire activity to your SECTraC advisor and discuss with him what instructional capabilities would be gained by the preservation of your selected illustrations.

8.1.1.6.A (continued)

* If you are not familiar with these techniques, read:

Kemp, J. E. Planning and and Producing Audiovisual Materials. San Francisco: Chandler Publishing Co., 1963. Pp. 70-74.

Your verbal explanation should document your awareness of the capabilities of preserving topical materials.

Behavioral Objective Continued:

8.1.1.6.B

The rational for preserving (perhaps three dimensional materials) is the same as that for the preservation of topical flat materials. Passe partant mounting, and plastic embedding are the two most common techniques. Both require special methods and materials which are discussed in the assigned reading. Considering the extra effort and expense involved in preserving three-dimensional specimens, would you suggest it for:

1. mounting leaves collected on an autumn nature walk?
2. preserving the remains of a dearly departed classroom gold fish?
3. preserving a cookie made by the children at Halloween?

Check your answer against the answer in Resource File 8.1.1.6.B.

Although not as commonly used as the techniques for preserving flat materials, there are means for teachers to preserve three-dimensional materials. The capabilities are the same as for flat materials, but you should be aware of the feasibility of preservation of three-dimensional objects.

8.1.1.6.B

1. Brown, J. W., Lewis, R. B., and Harcleroad, F. F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 380-383.
2. Resource File 8.1.1.6.B

Competency Component: 8.1.1 To assist the trainee in delineating the potentialities of the various forms of teacher-made materials.

Behavioral Objective: 8.1.1.6 The trainee will be able to delineate the capabilities provided by materials reproduced and/or preserved for classroom use.

Activity No.	*Evaluation Criteria*
8.1.1.6.A	Many materials available to the classroom teacher are not usable in the teaching/learning situation because they are fragile, perishable, or in limited quantities. A knowledge of the means for preserving and reproducing materials, in this activity flat visuals, opens up a vast array of new materials for classroom use. Therefore, in this activity the trainee is introduced to three means of preserving materials in their original form--dry mounting, cloth mounting, and laminating. The major portion of this activity is self-directed and the trainee is encouraged to also evaluate himself. For those unfamiliar with the techniques, resources are listed. Resource File 8.1.1.6.A(1) contains some excellent examples of the three techniques and the trainee is asked to study them and identify three capabilities the materials have after treatment that they did not have before. Resource File 8.1.1.6.A(2) contains a listing of capabilities of materials preserved for classroom use which the trainee may use to check his own work. A copy of this list is attached. The final task of the activity is the only one which needs to be evaluated by the instructor. The trainee is asked to select five illustrations that would be of value and describe how and why he would preserve them. The "why" explanation should include the standards of relevance, timeliness, and vitality; the "how" should be evaluated in terms of the appropriateness of the preservation technique for the instructional objective. It is to help the student reach the utilization and appreciation of the capabilities of materials preserved for classroom use.
8.1.1.6.B	This activity is one of acquainting the trainee with possible techniques rather than producing or applying these techniques to particular materials. The means of preservation are discussed in the required reading and the Resource File for this activity. The answer to the question is--any or all of these if the educational outcome would justify the effort and expense involved. This is a question of philosophy as well as method and might well be an excellent time to discuss both.

Resource File 8.1.1.6.A

The capabilities of instructional materials preserved or reporduced for classroom use include the following:

1. Timely, relevant, vital materials can be used many times.

2. Materials too small to be used with a group can be reproduced and preserved for use by individuals.

3. Preservation and reproduction techniques are relatively simple for teachers and/or students to use.

4. Preserved materials, particularly laminated materials, may be handled by students, allowing tactile as well as visual stimulation.

5. Materials which can be handled by students encourage involvement through proximity, a unique contribution.

6. Reproducing and preserving flat materials is a relatively inexpensive process.

7. Materials reproduced and preserved individually are very flexible in their usage--they may be used in a variety of ways (demonstrating, seat work, displays).

8. Materials preserved and reproduced may serve a variety of educational objectives--to stimulate, inform, review, etc.

9. Pictures can visualize abstract concepts.

10. Black and white or color may be faithfully preserved.

11. Preserved materials may be used alone or in a series.

12. Preserved materials may be used for individual study (if large enough), and home study.

13. Preserved and reproduced materials can provide permanent teaching materials and can be catalogued and stored for future use.

Competency Component: 8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.

Behavioral Objective: 8.1.1.7 The trainee shall be able to delineate the capabilities of audio materials including tape recordings, radio, disc records, and specialized presentations such as language master work.

Enabling Activities	*Resources*	*Comments*
8.1.1.7.A Up to this activity you have worked with the capabilities of mediums which are mainly visual or visual-tactile. Stimulation may be received through another important sense--hearing. The major capability of audio materials is obvious--its capacity to stimulate through sound. Rather than only reading about the capabilities of audio materials, you have been provided with a tape recording in which these capabilities are identified and discussed. Among the many observations you will make from this experience, you should be especially sensitive to the feeling that the verbal explanation is taking more time than it would have taken you to read the same material. This is a natural and common reaction, based partly upon the fact that speech rarely exceeds 150 words per minute while listening with comprehension can occur at rates exceeding 500 words per minute. Reading can occur at even faster rates. Part of your impatience is due to a lack of learning experiences based upon recorded sounds. It has been demonstrated repeatedly, however, that students can, with practice, learn effeciently from recordings, particularly when their learning	8.1.1.7.A 1. Resource File 8.1.1.7.A(1): Tape recording: "Sound for Learning: tape recordings, disc recordings, and radio." 2. Brown, J. W., Lewis, R. B., and Harcleroad, F. F. "Audio Materials." In AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 325-359. 3. Wittich and Schuller. "Classroom Use of Radio" and "Classroom Recorders." In Audio-Visual Materials. New York: Harper and Brothers, 1953. Pp. 253-311. 4. Resource File 8.1.1.7.A(2)	

8.1.1.7.A (continued)

difficulties manifest themselves as impairment of vision, or lack of concentration or inattention.

It should be obvious that listening experiences are particularly appropriate for those sounds which cannot be reproduced adequately as printed symbols.

As a curriculum consultant you will find it to your advantage to both use audio materials and encourage others to use them in appropriate situations. You have experienced one application of the capabilities of the medium in this activity. The additional sources listed in the Resource section (nos. 2, 3, and 4) further develop the capabilities and possible uses of audio materials. Study these sources to solve the following problem:

Audio recordings offer many opportunities for teachers to produce meaningful instructional materials. Some teachers have been successful in developing teaching strategies in which students use tape recorders to collect sounds related to the learning task. Sounds of community helpers, i.e., firetrucks, police sirens, traffic whistles, church bells, etc. could be a common target for student microphones. What capabilities of recorded sounds can you identify in this use of the medium? Discuss your list briefly.

Behavioral Objective Continued:

8.1.1.7.B

The curriculum consultant, interested in the individualization of instruction for special children, should be aware of the unique capabilities of specialized audio media such as the language master and language laboratories (sometimes called listening-learning laboratories). Both media incorporate active student response modes into the system. In addition, the language master provides a visual mode using printed cards which the child can see as the sound is heard.

Language laboratories individualize instruction by providing each student with his own listening and responding station; as many as five hundred stations may be contained in a single room. The McGraw-Hill Film makes these and other capabilities quite clear.

For the Language Master no such film exists; however, the assigned readings are adequate to explain the capabilities of this system. There are, incidentally, other devices* which have similar capabilities to the Language Master.

Resource File 8.1.1.7.B contains blank language master cards. Record a limerick using one card per line (five cards). Embellish each card with a hand drawn visual (print and/or picture). Using you materials and the

* (Brand Name)

8.1.1.7.B

1. McGraw-Hill Media Kit—16mm film—
   The Language Laboratory.

2. Brown, J., and Arkebauer, H.J.
   Using the Language Master with Hearing Impaired Children. Teaching Exceptional Children, 2 (Winter, 1970), pp. 81-85.

3. McMohan, M. The Language Master.
   Teacher-Made Materials for Use in Special Education. USOE/MSU Regional Instructional Materials Center for Handicapped Children and Youth (available in Special Education Instructional Materials Center, University of Missouri).

4. Resource File 8.1.1.7.B

Behavioral Objective *Continued:*

8.1.1.7.B (continued)

language master from the IMC, teach someone else the limerick. Then teach the same limerick to another student without the Language Master or other instructional aids. Write a one-page (250 words) summary of your observations, comparing the capabilities of the language master presented in the module resource with those capabilities you observed. Make note of any discrepencies and discuss them with your SECTraC advisor.

Competency Component:	8.1.1	To assist the trainee in identifying and naming various types of teacher-made materials.
Behavioral Objective:	8.1.1.7	The trainee shall be able to delineate the capabilities of audio materials including tape recordings, radio, disc records and specialized presentations such as language master work.

Activity No.	*Evaluation Criteria*
8.1.1.7.A	The trainee has been asked to identify the capabilities of recorded sound as examplified in the following situation: ...sounds of community helpers, i.e., firetrucks, police sirens, traffic whistles, church bells, etc. Some examples are as follows: 1. The use of tape recorders is motivating to students. 2. Tapes free teachers to move around the room. 3. The tapes can be preserved for future use. 4. The sounds can be repeated as many times as necessary. 5. The sounds can be altered, i.e., play faster or slower. 6. The sounds are transportable on tape. 7. The taped sounds can be paired with visuals. 8. The tapes are economical and can be prepared by students, teachers, or commercially.
8.1.1.7.B	The trainee was given several resources on the capabilities on the language master and the language laboratory. After reading these, the trainee was given the materials to prepare a set of language master cards, recording 1 line of a limerick on each card. In addition each card was to include illustrations. Using the prepared cards and a language master, the trainee was to select a person and teach the limerick. Next, the trainee was to teach the limerick to a second person without using the cards or other instructional aids. A one page summary of observations completed during the trial teachings is to be submitted. A discussion of any discrepancies between the capabilities delineated in the literature and those actually observed are to be noted.

Competency Component: 8.1.1 To assist the trainee in identifying and naming various types of teacher-made materials.

Behavioral Objective: 8.1.1.8 The trainee shall be able to describe the capabilities of programmed instruction materials.

Enabling Activities

8.1.1.8.A

While "the medium *is* the message" was heard by many, most educators hold that instructional materails (the software) in combination with appropriate equipment (the hardware) produces the medium--or the communication system by which educational information is exchanged. It is a transparency and an overhead projector, or a disc record plus a phonograph which produce communication; the hardware or software alone are inadequate.

Following this line of reasoning, programmed instruction, or the software material, plus the equipment, produces the mediated experience. The "equipment," in case of programmed instruction, may be a book, a recording, or a teaching machine.

In you capacity as curriculum consultant you should know what programmed instruction consists of, be familiar with the process involved, and have formed a sound judgement, based upon the best available information, on what the capabilities of the medium are.

The Resource section contains specific materials (nos. 1, 2, and 3) to help you. Read the chapter assigned

Resources

8.1.1.8.A

1. Brown, J. W., Lewis, R. B., and Harcleroad, F. F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 111-131.

2. McGraw-Hill Media Kit--"Programmed Learning"--available through the Instructional Media Laboratory by appointment.

3. * "Teaching Machines and Programmed Learning"--16mm film--available from the University of Missouri-Columiba Extension Division, Audio-visual and Communications Services.

4. Advantages claimed for programmed instructional materials:

    1. They permit individualization of instruction--students control the flow of information.

    2. They save students time and promote interest by starting on the student's compentency level and moving on when the competency ismastered.

    3. Students take increased responsibility for their own learning.

Comments

8.1.1.8.A

* See instructor to arrange viewing with other trainees.

8.1.1.8.A (continued)

in AV Instruction: Media and Methods and view the two films to familiarize yourslef with the components of programmed instruction and processes involved.

Then study the list of advantages, provided in the Resource Section, #4.

Thirty frames of programmed instruction are contained in Resource File 8.1.1.8.A. Work your way through this program, trying to approach it as an enthusiastic student. When you have completed the program, relfect upon your experience in terms of the advantages claimed for programmed materials. Did the experience validate those advantages as listed? If not, what discrepancies did you find? Do you feel the discrepancies were a result of your attitude or the fault of the program format? Resolve any remaining discrepancies by discussing them with your SECTraC advisor.

8.1.1.8.A

4. (continued)

4. They provide materials which have been carefully developed and evaluated in order to produce desired student behaviors--more content is covered and covered better than by conventional methods--providing quality control and empirical validation.

5. They present skills and ideas step-by-step.

6. Step mastery provides a built-in reinforcement of learning; the learner has an immediate response and constant knowledge of whether he is right or wrong.

7. The constant feedback provided by the materials provides high incentives for learners.

8. There is a whole range of machines available--from inexpensive devices such as simulated machines and "programmed" texts to computers--so that some form is within the economic range of all programs.

9. The experience provided can be fun and interesting.

10. Because materials are self-administered, the teacher has greater opportunities for individual help or lesson preparation.

8.1.1.8.A (continued)

4. (continued)

11. Pupils are active participants rather than passive observers.

12. Stimuli are carefully controlled and correct responses immediately reinforced--knowledge of having made a correct response is satisfying and serves as a reward to motivate the learner.

13. They serve as excellent forms for cuing verbal and non-verbal responses.

14. Materials are flexible--they may be used for enrichment or remediation, an entire course, or a unit within a course.

15. Creates relevant instruction.

5. Resource File 8.1.1.8.A

Competency Component: 8.1.1 To assist the trainee in delineating the potentialities of the various forms of teacher-made materials.

Behavioral Objective: 8.1.1.8 The trainee will be able to describe the capabilities provided by programmed instructional materials.

Activity No.	*Evaluation Criteria*
8.1.1.8.A	The Resource Section of this activity contains a compilation of the many claims made for programmed instruction. After reviewing the resources that discuss programmed instruction the trainee is asked to participate in a programmed instruction experience and then use his experiences to discuss and evaluate the advantages claimed for program instruction. His discussion should reveal an appreciation for the advantages as well as an awareness of some of the problems created when using this type of instructional medium.

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objectives:

8.1.2.1 The trainee shall be capable of analyzing instructional situations to determine those which warrant using and developing materials.

8.1.2.2 The trainee shall be capable of establishing criteria to determine the feasibility of developing teacher-made materials.

8.1.2.3 The trainee shall be capable of selecting, given specific instructional situations, which forms of media and/or materials are appropriate.

8.1.2.4 The trainee shall be capable of identifying situations where the special needs and abilities of handicapped children make the development of teacher-made materials advantageous.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.1 The trainee shall be capable of analyzing instructional situations to determine those which warrant using and developing materials.

Enabling Activities	*Resources*	*Comments*
8.1.2.1.A The production of locally produced teaching materials should be encouraged by the curriculum consultant in as much as they are more appropriate to local instructional needs. However, the amount of teacher time spent on producing those materials can only be justified in those situations in which there is a reasonable assurance that the materials will make a real contribution to the teaching/learning task. For this reason the curriculum consultant can assist teachers by helping them to analyze instructional situations to determine those which warrant using and developing materials. Resource File 8.1.2.1.A contains a handbook which provides one system for the analysis of instructional situations. You are to complete the activities in the handbook, writing your answers and observations on separate pages. When you have finished discuss your work with your SECTraC advisor.	8.1.2.1.A 1. Resource File 8.1.2.1.A	
8.1.2.1.B This activity is designed to acquaint you with the values of locally	8.1.2.1.B 1. Resource File 8.1.2.1.B	

Behavioral Objective Continued:

8.1.2.1.B (continued)

produced materials. In other words, when the objective requires appropriate materials which are not available commercially, or are not available in the local school system, one alternative is developing the materials locally.

The readings in Resource File 8.1.2.1.B were selected to convince you of the value of locally produced instructional materials. Read all the materials in the file and then abstract a master list of the values of teacher-made materials.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.1 The trainee shall be capable of analyzing instructional situations to determine those which warrant using and developing materials.

Activity No.	*Evaluation Criteria*
8.1.2.1.A	This activity contains a handbook for the trainee based upon the book Teaching and Media: A Systematic Approach by Gerlach and Ely. The content develops one model which can be used in the analysis of instructional situations. The role of media, and the development of appropriate materials for effective instruction, is a major component in the system.

The trainee answers questions as he progresses through the handbook. The questions and answers are included on this page. The answers should deviate little from those presented here; more than two errors means the candidate needs more work in this area and a suggested resource is the book mentioned above.

1. Q - What was the traditional role of the teacher? Is this the only role available?
   A - Traditional role - teacher was the sole source of wisdom, dispenser of information.
   Other role - Director of learning resources, composer of the total instructional system - and may function as a resource (i.e., lecturer) as well.

2. Q - What are two prerequisites to instructional design?
   A - Content selection and definition of objectives.

3. Q - What is the difference between an instructional goal and a behavioral objective?
   A - Instructional goal - long range objective, broad in intent, behavioral objective - goals concerned with smaller segments of content and stated with the behavior of the learner in mind.

4. Q - What is a "system"?
   A - System - a plan to help learners reach their goals.

5. Q - To be sure you understand, define the following terms by describing the teacher's role in each:
   A. Expository
   B. Inquiry approach
   A - A. Expository approach - teacher presents information to the learner, the learner is expected to process the information as presented.
   B. Inquiry approach - the student is responsible for

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.1. The trainee shall be capable of analyzing instructional situations to determine those which warrant using and developing materials.

Activity No.

Evaluation Criteria

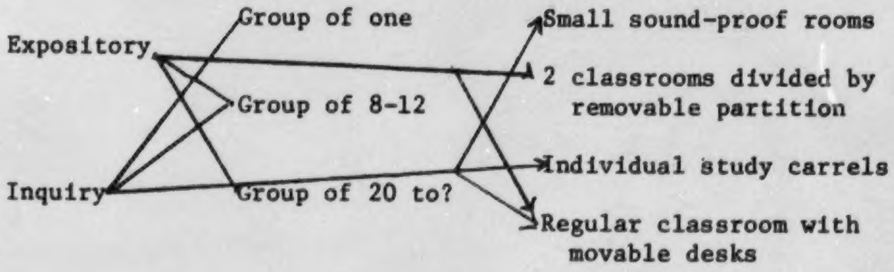
8.1.2.1.A (continued)

gathering and processing information, the teacher's role is to initiate and facilitate.

6. Q - Explain "technique" as used in this handbook and give several examples of teaching techniques.
   A - Techniques - The procedures and practices used to accomplish teaching objectives, i.e., lectures, discussion, AV presentations, student reports.

7. Q - Select and defend one approach as superior to the other.
   A - Either may be chosen--if inquiry, the student involvement, motivation, independence stressed; if expository--the correctness of the information as well as the amount of information in a short time.

8. Q - The following strategies, groups, and learning spaces are interdependent. See if you can group them together:
   A - Strategies Group Size Space Available



9. Q - Three questions were presented early in this section as basic in relating group size, and space and time allocation to learning objectives. Write these questions and discuss how at least one element (i.e., group size, or time) would be affected.
   A - A. Which objectives can be reached by the learner on his own? Group size of one--inquiry method, independent study area.
   B. Which can be achieved through interaction among learners themselves? Inquiry, group size 8-12 (small), small rooms or regular classroom with movable desks.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.1 The trainee shall be capable of analyzing instructional situations to determine those which warrant using and developing materials.

Activity No. | *Evaluation Criteria*

8.1.2.1.A (continued)

C. Which can be achieved through formal presentation by teacher and through interaction between learners and teacher? Expository, small and large groups, regular classrooms and two classrooms combined.

10. Q – Before we examine a case study of the process in action, verify your understanding by labeling the elements discussed in the systematic approach.
    A - Elements:
    A. Specification of content, objective - objectives written in behavioral terms on the content they employ.
    B. Assessment of entering behavior - what is known by the student and what he can be expected to learn.
    C. Determination of strategy - defining teacher's approach to using information, selecting resources, defining role of the student.
    D. Organization of students into groups.
    E. Allocation of space.
    F. Allocation of time.

11. Q - the objective determined by the faculty was______________.
    A - Student is able to correct punctuation and capitalization with two errors or less per page when given a two-page statement.

12. Q - Improvement of skill is to be made in what content area?
    A - English grammar.

13. Q - What level of performance do the teachers expect the learner to attain?
    A - Two errors or less per page.

14. Q - What conditions will effect performance?
    A - 45 minutes of unsupervised work.

15. Q - Summarize in two words the elements in this example.
    A - Specification of objective and content.

16. Q - Before designing instruction the faculty measured something. This measuring is an illustration of the third element in the process. What is the element?

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.1 The trainee shall be capable of analyzing instructional situations to determine those which warrant using and developing materials.

Activity No. *Evaluation Criteria*

8.1.2.1.A (continued)

A - Assessment of entering behavior.

17. Q - Several methods were used to measure the students' present level of ability and achievement. What were they?
A - Interviews with employers, grade and anecdotal records, standardized tests, teacher made test.

18. Q - Why was each student given a copy of the objective and expected terminal behavior?
A - The student had knowledge of what was expected of him, what his behavior was to be.

19. Q - Does the student receive instruction about how to reach the terminal behavior?
A - No.

20. Q - What is this strategy called?
A - Guided inquiry.

21. Q - Why were different sized groups used for those with serious and those with modest problems?
A - The severity of the problem dictated the size of the group —those with serious problems were felt to need individual attention and group identification and interaction.

22. Q - Why were time and space allocated as they were?
A - To meet the individual needs of the students--the strategy and group size affected space and the time had to be manipulated to fit with other commitments.

23. Q - What element of the system has been discussed?
A - Selection of appropriate resources.

24. Q - How was the selection affected by the choice of approach?
A - Strategy called for a different approach than expository, a need for group interaction materials, a need for individualized instruction, and immediate feedback.

25. Q - How may performance be evaluated?
A - By the degree to which the terminal behavior is attained by the learner--if it meets the behavioral objective.

26. Q - Where does feedback terminate?

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.1 The trainee shall be capable of analyzing instructional situations to determine those which warrant using and developing materials.

Activity No.

Evaluation Criteria

8.1.2.1.A (continued)

A - Feedback returns to the behavioral objective; however, it may occur anywhere in the cycle and never really "terminates."

27. Q - Take a moment here to discuss how the media selection rule relates to the study of the capabilities of the various mediums.

A - One must know the capabilities of the mediums--what they can do--to know whether or not those capabilities can help the learner reach the stated objective.

28. Q - Now see if you can apply the rule. Three examples follow. You are first to choose the medium you would select in the situation and verify your answer against the answer given you. Then select another medium that you would use to further implement the objective and record the rationale you used. Your choices will be based on your own assessment of the media capabilities and objectives. One example might be - while a motion picture of a two-cycle machine was chosen as most appropriate of the four choices, you might recognize that the film, once shown, is over. To reinforce the learning of the film, and provide a referent in class for the learner, as well as tactile stimulation, a cut away model or exhibit would be a good choice. Compare your alternatives to the choices to see if they supply additional information, stimulation, or have capabilities which compliment the original selections.

1. To identify the events in the cycle of a two-cycle internal combustion engine given. . .
   a. still representations
   b. moving representations
   c. verbal descriptions
   d. realia (i.e., the actual machine)
2. To order, from smallest to largest, the fractional parts of the circle with the appropriate fractions written on each part:
   a. a filmstrip presentation
   b. a tape recording describing fractions
   c. the flannel board (hook and loop, or magnetic boards)
   d. the chalkboard

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.1 The trainee shall be capable of analyzing instructional situations to determine those which warrant using and developing materials.

Activity No. *Evaluation Criteria*

8.1.2.1.A (continued)

3. To identify the safety signs (stop and go lights, stop signs, yield signs) common to school children:
    a. a motion picture presentation
    b. realia (actual signs)
    c. a transparency presentation
    d. charts

A - 1. (b) - alternative - mock-up with moving parts
2. (c) - alternative - realia--manipulatives—a circle, laminated, cut up, and movable
3. (b) - alternative - exact model

29. Q - Different mediums contribute significantly to each of these "events," several to more than one. Your final exercise is to list at least one medium which is appropriate to each event (i.e., feedback is provided instantly to the learner through programmed instruction).

A - Events of Instruction
All of these may vary--and should be judged individually.

If there is any doubt as to the trainee's understanding and competence in this area, they have been instructed to discuss this activity with the SECTraC advisor. In this discussion the trainee should be able to demonstrate his undertanding of the various elements in the system and his ability to apply this information to new situations.

8.1.2.1.B

The values of locally produced materials should be known and appreciated by the curriculum consultant. The Resource File for this activity contains several articles which chronicle the contributions of teacher made materials. The list which the trainee is required to produce should contain at least eight of the following:

Locally produced materials are valuable because they can:

1. bring local applications and observations to the classroom.
2. make current and topical materials immediately available.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.1 The trainee shall be capable of analyzing instructional situations to determine those which warrant using and developing materials.

Activity No.	*Evaluation Criteria*
8.1.2.1.B (continued)	3. accomplish specific learning objectives --commercially produced materials must be broader and more general. 4. produce local adaptions to meet different physical and environmental conditions as well as characteristics of the audience. 5. allow flexibility--reproduced and used in many forms (i.e., handouts, transparencies, charts). 6. provide materials otherwise unavailable. 7. allow the teacher to evaluate, refine, alter the material to improve content or utilization. 8. present a new or unique point of view. 9. provide inexpensive materials. 10. some provide quickly made materials. 11. allow for individualized instruction. 12. teacher clarifies and sharpens own perception.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.2 The trainee shall be capable of establishing criteria to determine the feasibility of developing teacher-made materials.

Enabling Activities	***Resources***	***Comments***
8.1.2.2.A	8.1.2.2.A	
As a curriculum consultant you are in a position to promote the wise use of instructional media. There are instructional situations which suggest the need for locally produced materials. However, not all situations warrant the time, energy, and expense necessarily spent to produce, locally, specific instructional materials. You should have some criteria, therefore, to help you decide and/or advise whether or not to produce an instructional product. In 1965, Brown and Norberg offered the following criteria for local production: Need - Is there an important need for instructional materials or devices? May it be satisified only through some appropriate local production activity? Or is it likely that some already available commercially produced item would serve equally well? Suitability of content - Will the item's content be appropriate for the group for which it is intended? If the group's previous acquaintance with the subject is	1. Brown, J.W., and Norberg, K.D. Administering Educational Media New York: McGraw-Hill Book Company, 1965. Pp. 171-172. 2. Brown, J.W., Norberg, K.D., and Srygley, S. K. Administering Educational Media: Instructional Technology and Library Services. New York: McGraw-Hill Book Company, 1972. Pp. 251-273. 3. Baker, R.L., and Schutz, R.E. (ed.). Instructional Product Development. New York: Van Nostrand Reinhold Company, 1971. Pp. 130-168. (especially Pp. 134-141) 4. School personnel 5. Tape recorder 6. SECTraC Advisor	

8.1.2.2.A (continued)

a locally produced visualization really satisfy the need? Or might it actually contribute negatively toward achievement of goals? Is there evidence that the item, as conceived and executed, does facilitate and develop desirable reactions?

Suitability of medium - Is the visualization, recording, or print presentation medium suitable for the ideas and concepts to be developed as well as for the conditions of communication (the physical environment, the psychological setting of the process) involved? Will charted relationships, rather than strictly verbal statements, be needed, for example, to simplify essentially abstract or complicated ideas? And if the communication is to be conducted for large groups rather than small groups, must such visualizations be preduced as transparencies for projection rather than as small drawings or charts?

Feasibility - If it is determined that the item is needed and worth producing, do local resources, staff, and facilities suggest that the production is feasible? Is there sufficient time to produce it? Can it be carried through to completion?

8.1.2.2.A (continued)

Practicality - Is the educational return from the item likely to be sufficient (for the producer, the students, the instructor, the system) to justify the expenditure of time, effort, materials, equipment depreciation?

When the same subject was handled by Brown, Norberg and Srygley in 1972, no significant changes were made, although you might wish to read this discussion and the book and pages are listed in the Resource section (#2). Compare this list of criteria and considerations with those stated in Popham-Baker, Rules for the Development of Instructional Products.

From these sources, develop your own list of criteria for local production. Then tape an interview with one responsible person (i.e., media director) in a school district to determine what criteria they actually use. Type out the criteria as presented by the official and submit it to him for approval before you compare the list with the list you developed. Discuss the entire exercise with your advisor, resolving, if possible, any discrepancies between theory and practice.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.2 The trainee shall be capable of establishing criteria to determine the feasibility of developing teacher-made materials.

Activity No.	*Evaluation Criteria*
8.1.2.2.A	The initial resources provide the trainee with content which allows them to develop a list of criteria for the development of locally produced materials. This list should include: Need Suitability Feasibility Practicality The trainee is then instructed to interview at least one person to determine what criteria are actually used. Although each interview will produce different results, the comparison should be drawn by the trainee between what are the ideal criteria as given, and what are actually used. In field testing, the main criteria was found to be the cost of the proposed material. A poor second was the availability of means to produce the materials. Other worthwhile criteria which could be given might include: 1. Does the proposed material offer variety from the usual instructional materials? 2. Does the proposed material utilize available community resources? 3. Is the material, if timely, worthy of preservation? 4. Does the material adapt to the needs and abilities of target group--i.e., visual rather than auditory for early grades.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.3 The trainee shall be capable of selecting, given specific instructional situations, which forms of meida and/or materials are appropriate.

Enabling Activities	*Resources*	*Comments*
8.1.2.3.A Although your daily personal contacts with various forms of media are many, as a curriculum consultant you will face the mediums with two major responsibilities: 1) the ability to help others use media well, and 2) to use media well yourself. It is important that you be able to select appropriate media when faced with specific instructional situations. Since the capabilities of each medium vary, most units require a multi-media approach to best meet behavioral objectives and learning "events," as described by Gagné. The unit "Westward Ho" was developed by McGraw-Hill as an example of a multimedia approach to instruction. First, review the entire kit; note briefly the types of presentations, the use made of the specific mediums, and the combined impact of the mediums in reaching instructional goals. Now assume you are a curriculum consultant and you have observed this unit being taught in a normal classroom. What comments would you make? Are there any alternatives to the materials which you feel would have been appropriate? Were the mediums selected	8.1.2.3.A McGraw-Hill Media Kit--"Westward Ho"--available through the Instructional Media Laboratory.	8.1.2.3.A Your comments may be recorded upon the medium of your choice.

8.1.2.3.A (continued)

according to their capabilities in reaching instructional goals? Would you add to or subtract from the number of presentations? Do the locally produced materials appear to need the criteria you established for materials warranging local production?

This unit was designed for use in a regular classroom. What changes would you make if the target audience was a class of hard of hearing children?

8.1.2.3.B

As a curriculum consultant you will find many situations of your own in which some form of media is appropriate. In this activity you are to demonstrate your ability to match appropriate forms of materials and media to a specific situation--the choice of situation is yours, but the situation should be one which would be a part of your job as a curriculum consultant. For example, you may wish to develop a demonstration unit on the use of teaching stations, a report on the need for an IMC in you school district, or a sample unit on Community Health for the trainable mentally retarded. In any case, use a systematic approach and in each case, be prepared to defend your choise of the media selected when discussing your work with the SECTraC advisor.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.3 The trainee shall be capable of selecting, given specific instructional situations, which forms of media and/or materials are appropriate.

Activity No. *Evaluation Criteria*

8.1.2.3.A

Students were allowed two alternate activities--either the "Westward Ho" Unit by McGraw-Hill or a Unit from the book Developing Units of Instruction: For the Mentally Retarded and Other Children with Learning Problems.

This activity had two purposes: to acquaint the trainee with a good instructional unit and the part mediated experiences play, and to help the trainee develop skill in analyzing and evaluating the use of media. The following information should be included in the trainee's report:

1. The types of presentations (i.e., discussion, lecture, AV presentation).
2. The mediums used--both type and frequency.
3. The use of commercially produced materials.
4. The use of locally produced materials.
5. Any special uses made of mediums (i.e., picture background on chalkboard, enlarged picture with opaque projector for a chart).

In addition, the trainee should be able to assume the role of curriculum consultant and evaluate the unit. The following considerations should be noted in this part of the report:

1. How well the material helped the students reach the stated objectives
2. Alternatives to the mediums selected.
3. How well individualized instruction, small group work, and large group work was used and if media contributed to the success of the presentations.
4. How well the unit used both commercial and locally produced materials.
5. How well the locally produced materials met the criteria established for teacher made materials.

8.1.2.3.B

The trainee has now been exposed to and worked with a systematic approach to the use of appropriate media to reach behaviorally stated objectives, the conditions which warrant the development of locally produced materials, and has had an opportunity to evaluate actual lesson plans. This activity is designed to provide the trainee with an opportunity to demonstrate his understanding by applying what he has learned to a new situation. The choice of situation is left up to the trainee--the only requirement is that the example be one that the trainee might expect to find in his capacity as curriculum consultant.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.3 The trainee shall be capable of selecting, given specific instructional situations, which forms of media and/or materials given specific instructional situations.

Activity No.	*Evaluation Criteria*
8.1.2.3.A (continued)	The criteria to evaluate this activity are: 1. The trainee must describe the situation. 2. The trainee must construct behavioral objectives for the situation. 3. The trainee must follow some system in structuring the teaching/learning situation. Hopefully this would include: provision for assessment of entering behavior, determination of strategy, allocation of time and space, selection of appropriate media, testing, evaluation, and feedback devices. 4. The trainee must determine exactly what materials and equipment would be used to help the learner meet the behavioral objectives. 5. The trainee must be able to defend his choice of media when questioned by the instructor. This defense should be made in terms of the capabilities of the media and their contribution to the needs of the learner and the situation.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.4 The trainee shall be capable of identifying situations where the special needs and abilities of handicapped children make the development of teacher-made materials advantageous.

Enabling Activities

8.1.2.4.A

Both the curriculum consultant and the teachers he advises should be aware of the contributions media can make to handicapped children. In addition to the capabilities normally available to students and teachers, many mediums can be adapted to meet the special needs of handicapped children.

A great deal of work has been done in the area of providing media and materials for special children; a great deal remains to be done.

Until recent years, few commercial materials were produced specifically for exceptional children. Special Education teachers were forced to either adapt materials designed for use in the regular classroom, or produce all of their own materials locally.

Today many more commercial producers have recognized the need and market for materials to be used with exceptional children. However, there remains a great need in the classroom for the creative and effective use of media--and this need often necessitates the local production of learning resources. The curriculum consultant who can adapt

Resources

8.1.2.4.A

1. Higgins, Conwell, Rusch, R.R. "Development and Evaluation of Auto-Instructional Programs in Arithmetic for the Educable Mentally Handicapped." ED 014 190
2. "Systems Approach in Deaf Education, Symposium on Research and Utilization of Educational Media for Teaching the Deaf." EDRS nf ED 018 047
3. "The Testing and Modification of Overhead Transparencies for Special Use with Classes for the Deaf." ED 025 091
4. Habilitation through Media. ED 031 028
5. "Communication, Production, and Dissemination of Instructional Technology." ED 047 443
6. "The Use and Evaluation of Instructional Technology in the Classroom." ED 047 444
7. "The Improvement of Special Education through Instrucitonal Technology." ED 04 742

Comments

8.1.2.4.A (continued)

to the needs of handicapped children can directly aid Special Education teachers, and indirectly, the children they serve.

The Resource section contains microfiche reports of media usage especially designed for handicapped children. Read and summarize each briefly.

Find and summarize at least three other examples (in text books, professional journals, etc.) which describe some instance where media was used to help in the instruction of special children. Then find three instances where media, as used in a normal classroom, could be adapted for use in meeting educational objectives in a special classroom, or for a special child. Finally, note the use of commercially and locally produced materials and what contribution each makes to the meeting of educational objectives.

Discuss your reading with your SECTraC advisor until your both sure of your competency in this important area.

8.1.2.4.A (continued)

8. Meyen, Edward L. and others. "The Use of Overhead Projection in Classrooms for the Mentally Retarded." ED 029 423

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.4 The trainee shall be capable of identifying situations where the special needs and abilities of handicapped children make the development of teacher-made materials advantageous.

Activity No. *Evaluation Criteria*

8.1.2.4.A

A brief summary of the microfiche reports would look something like this:

1. The Higgins, Conwell, Rusch study had as its purpose the development of media for teaching the educable mentally handicapped math concepts and the evaluation of programmed instruction. An audiovisual manipulative desk was developed which presents information on the screen through the use of slide projection, audio messages. The child manipulates objects or writes on response audio messages. Twenty-one different sequential programs were developed for teaching skills in arithmetic. The results showed that 1) AMV was an effective variable in producing differential responses; 2) going through programs two times produced higher test scores than going through once; 3) system could be used effectively individually; 4.) program is developed for EMR, not TMR. The study also noted that in writing for the MR, one must be aware of ability and not neglect interests.

2. A system is a structure or organization of an orderly whole clearly showing inner relationship of parts of each other to the whole itself. Instruction is a system --media is a subsystem. The nature of media is changing. Formerly an aid to instruction, it is now an integral part of curriculum. Thus, the role of the teacher had to change. No longer the focal point in curriculum and structure, she is a mediated teacher. However, research in media and materials have produced little change in classroom instruction. Why? Schools of education are criticized because they are organized around the classroom teacher when they should be more concerned with the output of the system than themselves. Media humanizes the classroom by bringing in the best brains.

3. The OVP is causing a revolution in teaching methods from preschool to college equal to the invention of the blackboard. The needs of the deaf are unique; they demand improvement and development of skills involved in communication. The benefits of the OVP are numerous--group teaching improvement, increased attention, children watch as materials are prepared and are shown many things that materials before did not permit, preparation of materials can become a joint student-teacher effort.

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.4 The trainee shall be capable of identifying situations where the special needs and abilities of handicapped children make the development of teacher-made materials advantageous.

Activity No.

8.1.2.4.A
(continued)

Evaluation Criteria

There is a need for workshops since the teacher cannot be expected to use this technique until they have been exposed to its many possibilities. The ideal set of equipment for a classroom would include: group and carousel slide projectors chairs with arms, 8mm projector, and screen. A study dealing with the modification of transparencies with deaf students showed no significant differences in achievement between groups.

4. Media is an effective and efficient means of improving delivery of services. However, it is a tool and not a totality, a resource and not a replacement. The importance of providing direction for you (method and media) cannot be over emphasized. Programmed instruction is a logical method for teaching the deaf since to be an independent adult he must first be an independent learner. A national clearing house for compilation of data is needed.

6. The primary concern of many educators is to make the fruits of technology available to the handicapped. Teachers and administrators are often neutral about change-making the above often improbable. The technological development of educational products leads to real improvements in education. Although the initial cost is high, if implemented, the unit cost is low.

7. Instructional technology can be divided into two areas--the invention of the machine and the technology of utilization. More idea generation must emerge from the classroom teacher. The intriguing aspects of media as a facilitation for student communication, involvement is often overlooked. Perhaps it is because the teachers need training in media which they do not now receive. The article mentions a CAI instruction course in Sp. Ed. that Penn. State sends out on movable vans to enable in-service training for teachers in isolated rural areas-- interesting.

8. Visual presentations reduce man's communication problems. The abstract becomes concrete, instruction can be paced to match students' comprehension (most important). The MR student, with

Competency Component: 8.1.2 To assist the trainee in identifying and describing instructional situations in which teacher-made materials would be beneficial.

Behavioral Objective: 8.1.2.4 The trainee shall be capable of identifying situations where the special needs and abilities of handicapped children make the development of teacher-made materials advantageous.

Activity No.	*Evaluation Criteria*
8.1.2.4.A (continued)	a background of failure with formal instructional materials tends to be more receptive to the casually produced. But, the special student is often confused with cluttered transparencies; one must often make one's own. A very good detailed analysis of the OVP was given. In addition, the trainee is required to find and summarize three examples of media used specifically in the instruction of a handicapped child (or children). This will vary, but should illustrate the application of one or more of the capabilities of a medium in the teaching of the special student. To further his ability to extend the general capabilities of media to the particular needs of special children, the trainee is then instructed to find three instances of the use of media in a regular classroom which could be adapted for use in a special classroom.

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objectives:

8.1.3.1 The trainee shall be able to develop appropriate manipulatives--both realia and models.

8.1.3.2 The trainee shall be able to produce appropriate graphics.

8.1.3.3 The trainee shall be able to produce materials for still projection--i.e., materials for use with the opaque and overhead projectors, slides and filmstrips.

8.1.3.4 The trainee shall be albe to produce materials for motion projection, i.e., 16mm films, 8 and super 8mm films, and 8mm film loops.

8.1.3.5 The trainee shall be able to construct effective displays.

8.1.3.6 The trainee shall be able to reproduce and preserve materials for classroom use.

8.1.3.7 The trainee shall be able to produce audio materials including tape recordings, language master presentations.

8.1.3.8 The trainee shall be able to develop programmed instruction materials.

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures, and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.1 The trainee shall be able to develop appropriate manipulatives--both realia and models.

Enabling Activities

8.1.3.1.A

As a curriculum consultant you will be working both directly, for instance in you own presentations, and indirectly, for instance in your advisement of teachers, with almost all the forms of media. You may or may not have to produce your own materials, but you will have to know how such materials are produced. The procedures followed, the techniques used, and the equipment, supplies, and skills required to produce instructional materials are important considerations which the curriculum consultant must know in order to provide direction in the development of locally produced materials.

Educators have found that the more closely a learning experience resembles the actual experience the student will meet, the more effective and permanent the learning will be. Although real objects are the most obvious sources of accurate learning materials with the smallest amount of transfer needed, they are often overlooked by those who seek to develop materials. The main limitation for using realia generally lies not with the number of objects available, but with the user's ability to recognize, locate,

Resources

8.1.3.1.A

1. Brown, J. W., Lewis, R. B., and Harcleroad, F. F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 362-387.
2. Meeks, M. F. Models for Teaching. Austin, Texas: The Visual Instruction Bureau, Division of Extension, The University of Texas, 1956.
3. Cohen, M. Focus on manipulatives. Instructor, June, 1955, 74, pp. 94-95
4. Activity 8.1.1.1

Comments

8.1.3.1.A

Your exercise will be evaluated on not how appropriate your selections are or how accurate your specifications are; your selection will also be evaluated on your originality and creativity. So let your thinking go and be "good" and right, not just right!

8.1.3.1.A (continued)

classify, and acquire them. It is important that you, as curriculum consultant, attune yourself to real things and their possible uses.

Real things may be used in two ways--in their natural state, or in a preserved state. Having real things for the learner, whether teacher or student, to handle, observe, manipulate, display, discuss, assemble, disassemble, may be the key to effective learning.

At times real objects cannot be handled or displayed without destroying them. Remember that these can often be preserved by placing them in protective mediums like plastic, passé partant, mounting, bottles and jars, or even cages or aquariums! List at least three sitations when a curriculum consultant could use real objects to advantage.

Many times real things are either not available, practical, or useful in their natural states. Then models become the learning mediums which most closely resemble the actual materials. For example, a scale model of a local resource center could be produced for use by a small study committee, and actual water treatment plant would not be available for classroom study, and a mock-up of an electrical curcuit with all unnecessary elements eliminated would be more understandable than viewing a complex electrical machine.

8.1.3.1.A (continued)

There are several types of models which can be developed to meet particular educational objectives. They were defined and discussed in Activity 8.1.1.1, which you might wish to review. Additional materials which discuss models are listed in the Resource section and although optional reading, they will provide you with some excellent examples and utilizations.

Although you may not actually produce your own models, you should be able to design and prepare the specifications for the type of model you need to best meet your educational objective.

Earlier in this activity you were asked to list three situations when a curriculum consultant could use real objects to advantage. Now list three situations when a curriculum consultant could use models to advantage. Design (or prepare a working sketch) of the models for the situations you selected; prepare a specification sheet to accompany your designs, including important elements like size, material to be used, scale, colors if important, and amount of detail.

Competency Component:	8.1.3	To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays.
Behavioral Objective:	8.1.3.1	The trainee shall be able to develop appropriate manipulatives--both realia and models.

Activity No. — *Evaluation Criteria*

8.1.3.1.A

The things will affect a curriculum consultant's use of models--his ability to recognize situations in which they will be beneficial and his ability to have produced the model he visualizes.

Although a curriculum consultant may not have to actually produce his own models, he will need to be able to describe, accurately and creatively, what he wants done to those who will be responsible for production.

The trainee is asked, in this activity, to test his own ability in these areas. His first task is to identify three situations which would warrant the use of models. You should judge his choice of situations by determining if the trainee's examples use the capabilities of models (see 8.1.1.1.A--Resource section, #6 for a list of capabilities), if the trainee selects the right type of model (i.e., mock-up, cut away, etc.) and if the proposed material is feasible in the given situation (criteria in 8.1.2.2.A).

The design sketched for the proposed models should include:

1. A rough drawing.
2. Specifications:
    a. Size desired
    b. Finished color and texture desired
    c. Particular features like possible materials, amount of detail necessary, etc.

The sketch or design need not be a finished product but should demonstrate the trainee's appreciation of the instructions and specifications needed to successfully transfer ideas into products.

The three situations which could use real things may be as varied as an Hawaiian luau to a terrarium to a collection of seashells. The important thing is that the trainee indicate, through his selections, the vast array of real things available. Hope for creativity —settle for appropriateness.

The three situations calling for models should indicate the trainee's understanding of the reasons for using models (unavailability of realia, size of real object, complexity, etc.) and also of the

Competency Component:	8.1.3	To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).
Behavioral Objective:	8.1.3.1	The trainee shall be able to develop appropriate manipulatives--both realia and models.

Activity No.	*Evaluation Criteria*
8.1.3.1.A (continued)	criteria for production--is the possible and worthy of production. Any appropriate situation is acceptable, as long as it illustrates the points mentioned and the specifications are clear enough to allow development. Examples follow:

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.2 The trainee shall be able to produce appropriate graphics.

Enabling Activities	***Resources***	***Comments***
8.1.3.2.A The term "graphics" can mean a great many things--from 1) vivid and/or lifelike, to 2) of or about drawing, etching, painting, or engraving, to 3) pictorial communication. And good graphics do, probably, include all three definitions. Instructional media often defines graphics through examples--graphs, charts, diagrams, posters, maps; this method was used within this module (Activity 8.1.1.2) when determining the capabilities of graphic materials. In your capacity as curriculum consultant you need to know the types of graphic materials--what final products can be produced to meet particular learning goals. There are, however, certain common elements and characteristics. Once the type of graphic needed has been established, the elements of design and production are much the same for all. As a curriculum consultant you may or may not need to produce your own graphic materials, but you will need to design materials and evaluate finished products.	8.1.3.2.A 1. Resource File 8.1.3.2.A (1) 2. Commercial Suppliers of graphic materials: Clip Art and Books: American Mail Advertising 61 Newbury Street Boston 15, Massachusetts A.A. Archibold Publisher 419 South Main Street Burbank, California Multi-Ad Services 118 Walnut Street Peoria, Illinois Harry Volk Art Studio Pleasantville, New Jersey Paper Cut-outs: Bruce Miller Publications P.O. Box 369 Riverside, California Mutual Aids 1946 Hillhurst Avenue Los Angeles 27, California	

Behavioral Objective Continued:

8.1.3.2.A (continued)

You are, therefore, going to study three common ingredients found in most graphic materials--art work, lettering, and design. In designing, evaluating, and/or developing your visual materials you may find it necessary to do any or all:

Draw: illustrations, diagrams, graphs.

Letter: titles, captions, labels.

Design: layouts--from bulletin board composition to 2 X 2 slides.

Don't be afraid--there are all kinds of aids to help you . Start now to gain knowledge, self-confidence, and you AV crutches! The rest of this activity will deal with the first skill--drawing or illustrating.

Many educators, whether teachers, administrators, or curriculum consultants, do not use visuals because they are reluctant to do the art work or lettering. Don't be. These are simple skills which can be easily learned, and mechanical aids to help you.

This Behavioral Objective is divided into three parts: Activity 8.1.3.2.A which concentrates on art work, Activity 8.1.3.2.B which deals with lettering, and Activity 8.1.3.2.C

8.1.3.2.A (continued)

2. (continued)

Paper Cut-outs (continued)

Stik-a-Letter Co.
Route 2, Box 286
Escondido, California

The Ticket and Tablet Co.
1021 East Adams Street
Chicago, Illinois

Gaylord Brothers
155 Gifford Street
Syracruse, New York

Grace Letter Co.
77 Fifth Avenue
New York 3, New York

Hernard Manufacturing Co.
21 Saw Mill River Road
Yonkers, New York

3. Resource File 8.1.3.2.A(2)

4. Resource File 8.1.3.2.A(3)

8.1.3.2.A (continued)

which is concerned with the elements of design. You should complete all of these activities, but you may concentrate upon those activities which you feel will benefit you personally and professionally the most.

The most obvious way, and either the easiest or hardest, depending upon your talents and abilities, to illustrate is by free hand drawings. But, you do not need to be an accomplished artist to produce acceptable freehand drawings for graphic presentations. Go to Resource File 8.1.3.2.A(1) to see! After you complete this file, return to this activity.

Pictures and materials form magazines or similar sources are legitimate graphic illustrations as long as the pictures or materials are suitable and meet the design criteria for the presentation. In addition, ready made pictures and cut-outs are available from commercial sources (Resource section lists some of these).

If an appropriate picture is available, but cannot be used directly there are means for adapting it. Resource File 8.1.3.2.A(2) discusses some of these.

Finally, color and shading may be added to your illustrations. Resource File 8.1.3.2.A(3) contains information on how this process works.

8.1.3.2.A (continued)

Develop one free hand sketch and one adapted picture with color and shading added. Your product may be very polished or very rough, depending upon your interest, but should demonstrate your understanding and ability to apply the required skills and techniques.

8.1.3.2.B

Lettering is an important part in developing and producing many graphic materials. Legible and attractive letters may either comprise the entire content of the visual or add to the effectiveness of other illustrative materials. In the simplest graphic or the most elaborate visual, the lettering will affect the quality of the entire production. It is important, therefore, that as a curriculum consultant you know how to do simple lettering and be aware of the wide range of commercial lettering materials that are available.

The most obvious way to produce effective lettering is to do-it-yourself! This method may range from simple freehand lettering to sophisticated letters produced with elaborate aids like the Varigraph System.

The Resource section lists several super 8mm films, available through the IML, which illustrate a few techniques for lettering materials. Additional

8.1.3.2.B

1. McGraw-Hill Text Films--Super 8mm cartridge.
    - A. F00058 Lettering: The Felt Pen (Basic Skills)
    - B. F00059 Lettering: The Fetl Pen (Applications)
    - C. F00061 Lettering: Wrico-print
2. Resource File 8.1.3.2.B(1)
3. Resource File 8.1.3.2.B(2)
4. * Brown, J. W., Lewis, R. B., and Harcleroad, F. F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. P. 414.

8.1.3.2.B

Criteria for evaluation on this exercise would be:

A.- (Outstanding)
Exercise technically perfect
Variety of techniques employed
Exercise shows imagination and creativity as well as accuracy.

B.- (Superior)
Exercise technically correct or correctable
Two or more techniques employed
Exercise is neat and attractive

C.- (Minimum Acceptable Level)
Exercise is complete

8.1.3.2.B (continued)

techniques are explained in Resource File 8.1.3.2.B(1)

After you have reviewed these resources, use what you have learned to write your own name. Be sure to employ some different techniques and label how you did what you did.

Then go to Resource File 8.1.3.2.B(2) to review the various commercial lettering materials available. Experiment with the commercial materials wuntil you feel you can discuss in an y form (i.e., debate, discussion with two or more participants, position statement), using any medium (i.e., written report, position paper, video tape recording, tape recorder) the following statement:

> "Only occasionally are there educational or artistic purposes that justify spending the time required to make freehand letters for display....."*

8.1.3.2.C

If you agree with MacLinker that visuals are useful in achieving successful communication, either as a teacher or a curriculum consultant, because:

1. Visuals present messages to the most highly developed sense.
2. Visuals concentrate interest and attention.

8.1.2.3.C

1. MacLinker, J. Designing Instructional Visuals Theory: Composition: Implementation. From Bridges for Ideas. University of Texas: Visual Instruction Bureau, Dividion of Extension, 1968.
2. Resource File 8.1.3.2.C

8.1.3.2.C (continued)

3. Visuals can relate abstract principles to concrete objects.
4. Visuals can clearly illustrate relationships.
5. Visuals can communicate messages difficult or impossible to put into words.
6. Visuals can be made either realistic or abstract.

Then it is important to be able to produce effective visuals--visuals which attract attention, hold interest, transduce behavioral change (learning).

To do this, you should know how to analyze a visual and be able to apply the elements of design to graphic presentations.

Read and study Designing Instructional Visuals Theory: Composition: Implementation until you know and understand balance, movement, clarity, and simplicity and how these can be achieved through the design elements of Space, Line, Shape, Size, Texture, and Color. When you feel confident in your understanding, go to Resource File 8.1.3.2.C and evaluate the visuals you find there. Redesing any one visual; show a few alternative sketches and explain the design elements you employed in your visual.

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.2 The trainee shall be able to produce appropriate graphics.

Activity No.

8.1.3.2.A,
8.1.3.2.B, &
8.1.3.2.C

Evaluation Criteria

This activity is divided into three sections: 8.1.3.2.A, which deals with art work, 8.1.3.2.B, lettering, 8.1.3.2.C, elements of design. All of these are elements which usually are included in the production of graphic materials. In each activity the trainee is given information about the elements and production requirements and some experience in working with each. The emphasis is not upon producing a finished product which is exemplary of the process, but in gaining a knowledge of what is involved in producing graphic materials and the skills and materials required. Therefore, exposure to all available materials, limited practical experience, and evaluative exercises are contained in each activity.

The product required in 8.1.3.2.A is two drawings--one freehand sketch and one adapted picture. The freehand should show evidence of an appreciation for basic shapes and perhaps figure drawing. The adapted picture (opaque enlargement or reduction, grid enlargement or reduction) should be accurate. The finished quality is not as important as the ability to apply the skills and techniques discussed and used in the activity.

To demonstrate his understanding of freehand lettering and the types of lettering aids (i.e., cardboard letters, stencils, lettering guides and lettering pens), the trainee is required to write his name using several of the techniques discussed. The sample should indicate a familiarity with several techniques and each should be labeled.

The trainee is then directed to the Resource File which discusses various types of commercially prepared letters. To demonstrate his understanding and appreciation of both types of lettering the trainee is asked to discuss the following statement:

> "Only occasionally are there educational or artistic purposes that justify spending the time required to make freehand letters for display . . ."

Which position the trainee takes is not as important as his reasoning. The following points should be included in some form:

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.2 The trainee shall be able to produce appropriate graphics.

Activity No.

8.1.3.2.A,
8.1.3.2.B, &
8.1.3.2.C
(continued)

Evaluation Criteria

1. Freehand lettering may be more versatile than commercial lettering--more styles, sizes, colors, etc. may be used.
2. Freehand lettering may be done very quickly when the quality of the lettering is not an important criteria.
3. Freehand lettering is more expensive considering time, but costs less to produce.
4. It is important to be sure the finished product is worth the time involved;
5. Freehand lettering provides an always available source--which may not be true of commercial lettering.

1. Commercial lettering produces a professional quality product consistently.
2. Commercial lettering is available in a great variety of sizes, lettering styles, and backing materials--and it is almost always possible to find the right lettering to do the job.
3. Little skill or ability is needed to use commercial lettering.
4. Commercial lettering is fast to use.
5. Commercial lettering is expensive but justifiable if the time saved and products produced are worthwhile.

The Resource given for this activity is excellent and discusses in detail the concepts of balance, movement, clarity and simplicity and how these can be achieved through the design elements of Space, Line, Shape, Size, Texture, and Color. The evaluations of the visuals should include almost all of these considerations. A sample evaluation might be:

Balance: Informal balance is achieved in this visual through the use of a heavy object on the bottom balanced by the vote for and figures on top. Also the shiny materials on top helps balance the flat lettering on the bottom. The basic dull tones of the children and their clothing is balanced by the color of the pink sign and red lettering. The larger part of the picture (2/3 is children and vote for) is balanced by impact of the bottom. The informal balance achieved is fresh and interesting.

Movement: Movement of the eye from top to bottom leads viewer from visual symbols to print symbol. The basic shape is a V which leads eye to the Dunathan--main idea.

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.2 The trainee shall be able to produce appropriate graphics.

Activity No.

8.1.3.2.A,
8.1.3.2.B, &
8.1.3.2.C
(continued)

Evaluation Criteria

Clarity: The picture and the lettering in this visual are easy to read and interpret. While the figures are somewhat distorted, they are easily recognizable and confusing details are omitted--and interest is gained. The production is also good--well mounted, centered, and readable.

Simplicity: All the elements (pictoral and lettering) reinforce a single theme—the Vote for Dunathan.

Space: The illusion of 3-D could have been heightened by leaving additional space at the top of this visual. However, the blank spaces emphasize the pictoral elements and carry to the lettering.

Size: Within the lettering the size as well as color of the Dunathan lends emphasis.

The trainee is then requested to redesign one of the visuals. An example follows, but the trainee may use any of the visuals given. It is the trainee's ability to evaluate and apply design principles rather than the finished product that is to be judged.

1. formal balance - objects are balanced by one another equal in size and equal distance from center.
2. unity - excess of white space around house make it a separate entity.
3. movement - basic movement from left to right as one sees picture then the letter.
4. clarity - it is easy for me to interpret but I would question its simplicity since three concepts (B, H, F,) are presented on one poster.
5. lines - the flow is influenced by the imaginary intersecting lines one visualizes because of location of pictures. Interesting lines cause one to center on the house (the focal point) which is not the goal of the visual.

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.3 The trainee whall be able to produce materials for still projection—i.e., materials for use with the opaque and overhead projectors, slides and and filmstips.

Enabling Activities

8.1.3.3.A

The opque projection system and the overhead projection system are two of the most versatile and useful systems available to the curriculum consultant, and the clients he serves. You should remember that each system serves specific functions and has specific capabilities which are exclusively theirs. The two can in no way supplant each other. Each acts as a complement, performing tasks for which their peculiar capabilities equip them. To effectively use these systems you need to know what types of materials can be used by each, and how to produce suitable visuals for use in each system.

The opque projector will project most regular instructional material without any "treatment." In other words, no intermediary step is necessary between locating your visual (i.e., a picture in Life magazine), and projection through the opaque projector.

It is the materials to be used in the system which determines the amount of effort required to preserve and protect it for subsequent projection. Still projection materials may in-

Resources

8.1.3.3.A

1. Dale, Edgar. Audio-Visual Methods in Teaching (Rev. Ed.). New York: Holt, Rinehart and Winston, 1954. Pp. 259-261.
2. Frye, Roy A. Using Tearsheets. From Bridges for Ideas Series. University of Texas: Visual Instruction Bureau, Division of Extension, 1968.
3. Resource File 8.1.3.3.A

Comments

8.1.3.3.A (continued)

example, an editorial which would only be used one time in class, and which would not warrant any treatment), materials that are to be used once are important, and which may be of use again and are therefore worthy of saving, and those whose value is limitless, will be used often, and must be mounted and preserved to protect their usefulness for future use.

The methods for preserving materials are discussed in Activity 8.1.3.6. These methods can be used in protecting and preserving materials for use on the opaque projector. Mounting techniques are discussed in section#6 of Resource File 8.1.3.3.A. One of the best discussions of the materials for use on the opaque projector is found in Audiovisual Methods in Teaching. Rev. Ed. Read the pages indicated in the Resource section.

A valuable contribution of the opaque system is its ability to aid in the production of locally produced materials. Tearsheets (which are really and printed flat materials) can be enlarged or reduced to a variety of sizes and onto a variety of materials by using the opaque projector. A brief but clear discussion is assigned to you in #2 in the Resource section of this activity.

The overhead projector, unlike the opaque projector, requires specially

8.1.3.3.A (continued)

produced transparencies for projection. There are many excellent commercially produced transparencies; however, the supply of appropriate transparencies does not begin to meet the needs of the average administrator, consultant, or Special Education Teacher. Therefore, it is very important that the Special Education teacher and the curriculum consultant understand how transparencies can be made and be able to, if necessary, develop and produce materials for use in the overhead system.

Resource File 8.1.3.3.A is divided into six sections:

1. Handmade transparencies
2. Heat-transfer transparencies
3. Heat-transfer Thermofax transparencies
4. Picture-transfer or color-lift transparencies
5. "Special" transparencies
6. Mounting techniques plus masking and overlays

For information on how to produce transparencies, read all of Resource File 8.1.3.3.A.

Section #2 of Resource File 8.1.3.3.A contains the publication The Use of Overhead Projection in Classrooms for the Mentally Retarded. Pages 5-8 and 75-84 present excellent justifications for the use of the overhead projector and suggestions for proper

8.1.3.3.A (continued)

use. Develop briefly (250 words) a similar "case" for the opaque projector. Then make a list of at least 10 possible materials (or subjects) for use with the opaque and overhead projection systems. Besides each material note what provision would be made for projection, preservation, and/or storage if appropriate.

8.1.3.3.B

Once you have studied producing materials for the overhead system you are one step ahead in the area of producing slides. All of transparency making processes can be used to produce 2 X 2 slides.

The additional means for producing 2 X 2 slides are recorded in the production book Production of 2 X 2 Slides for School Use. A handout from Minor's book is attached to Coltharp's book. Use both of these resources as references to answer the questions in Resource File 8.1.3.3.B.

8.1.3.3.C

The advantages of using slides over filmstrips has been discussed under the capabilities of each. There may be times when a locally produced filmstrip is more appropriate than a slide series. Two ways to produce filmstrips are illustrated in Resource

8.1.3.3.B

1. Coltharp, J. Production of 2 X 2 Inch Slides for School Use. From Bridges for Ideas. University of Texas: Visual Instruction Brueau, Division of Extention, 1970 (rev.).
2. Minor, Ed. Simplified Techniques for Preparing Visual Instructional Materials. New York: McGraw-Hill Book Company, Inc., 1962. Pp. 98, 99, (attached to #1 above in SECTraC Library).
3. Resource File 8.1.3.3.B

8.1.3.3.C

1. Resource File 8.1.3.3.C

8.1.3.3.C

The Write-On Film Strip is available through the SEIMC. Ask Mrs. McElmurry if you would like to see it.

Behavioral Objective Continued:

8.1.3.3.C (continued)

File 8.1.3.3.C. Study these sources to discover the main difference between the two and one advantage and disadvantage of each; summarize you conclusions in a two-paragraph report.

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures, transparencies, audio materials, and displays).

Behavioral Objective: 8.1.3.3 The trainee will be able to produce instructional materials for use with the opaque and overhead projectors, slides, and filmstrips.

Activity No. *Evaluation Criteria*

8.1.3.3.A

The overhead projection system and the opaque projection system are two of the most valuable mediums that can be used by educators. This activity discusses both systems. Since material for use with the opaque projection system may be used in its origianl form, this activity explains (Resource File 8.1.3.3.A, Sections 1-6) the ways transparencies may be developed and produced.

An excellent rationale for the need of the overhead system, as well as suggestions for proper use, is given in the assigned file. Following his study of the readings, the trainee is asked to develop a "case" for the opaque system. This rationale should include the capabilities of the system--a list of the capabilities of both systems (overhead and opaque) is attached to this sheet. If there is any question as to the trainee's understanding, use these two lists to have him compare and contrast the two mediums.

The trainee is also asked to develop a list of ten materials (or subjects) to be used with the overhead and opaque projection systems, with provision for projection needs (i.e., made into a color lift transparency), preservation, and storage, if needed. The choices may again be judged against the list of capabilities for both and should reflect the best use of each medium and material.

8.1.3.3.B

1. What is a 2 X 2 slide?
   A. A single transparency mounted for projection.

2. What is the difference between natural color film slide and a colored acetate transparency slide?
   A. Color may be added to a clear acetate transparency by the use of pens or colored acetate--but it is an additive process; natural color film holds color as a part of the film and the color becomes evident after the film is processed.

3. If slides are 2 X 2, how can they be available in picture areas of 24 X 36mm, 18 X 24, 36 X 36, to 26 X 26mm?
   A. The 2 X 2 dimension refers to the outer edges of the slide, not the projected area of the film.

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures, transparencies, audio materials, and displays).

Behavioral Objective: 8.1.3.3 The trainee will be able to produce instructional materials for use with the opaque and overhead projectors, slides, and filmstrips.

Activity No.

8.1.3.3.B (continued)

Evaluation Criteria

4. What is the most common method of mounting slides? What is the disadvantage of this method?
   A. The cardboard mount--disadvantage: the film is not protected and may be damaged by finger prints, scratches, dirt, etc.

5. How can this disadvantage be overcome?
   A. Film may be placed between two pieces of glass, or plastic, and the entire mount secured by plastic binders, an interlocking metal mount, self-locking white plastic mount, or binding tape.

6. A 35mm is part of the basic minimum equipment required for the local production of 2 X 2 slides. List three essential features of suitable 35mm cameras.
   A. 1. A method of focusing.
      2. A shutter which will give a wide range of shutter speeds.
      3. A variable aperture or diaphragm.

7. Why is a single lens reflex camera preferable to an external viewfinder camera?
   A. The single lens reflex camera shows the same image in the viewfinder that is recorded on the film.

8. What does an exposure meter do?
   A. Measures the amount of light reflected or falling on the subject to be photographed. This, in turn, determines the correct film exposure.

9. The two main categories of color films are: ______________ and ________________________.
   A. Daylight and artificial light.

10. If slides are to be useful they must be classified and stored in some systematic fashion. List two types of storage equipment necessary.
    A. Storage trays, either circular (carousels) or rectangular, and filing cabinets.

11. While the minimum requirements for 2 X 2 slide production are

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures, transparencies, audio materials, and displays).

Behavioral Objective: 8.1.3.3 The trainee will be able to produce instructional materials for use with the opaque and overhead projectors, slides, and filmstrips.

Activity No. *Evaluation Criteria*

8.1.3.3.B (continued)

a 35mm camera, an exposure meter, film, and filing equipment, additional supplies are often useful. List at least 2 pieces of equipment which might be beneficial.

A. Tripod, lighting equipment, copying stand supplementary camera.

12. List at least three considerations when selecting materials for copying.

A. Size of material (3 X 4 proportion, 18" X 27" size the smallest with standard 50mm lens), simplicity of content, legibility of content (letters, symbols no less than 1/25 of the total height of material to be photographed).

8.1.3.3.C

In this activity the trainee is asked to differentiate between the two processes and list an advantage and disadvantage of each. This is a simple exercise and should be relatively easy, although it does call for conclusions not specifically written in the information given.

The main difference between the Standard Projector and Equipment Company filmstrip/cassette outfit and the Write-On Film Strips is that one uses film and a photographic process and the other uses a treated 35mm material upon which the developer can write, draw, or type—with no further processing required.

The major advantage of the Write-On filmstrip is probably its relative inexpensiveness--which is also the major disadvantage of the Standard—its expense.

Another advantage of the Write-On is the ease with which filmstrips can be produced--the only additional tools needed are typewriter, pens, pencils—and some of these are optional.

The Standard camera requires some knowledge of photography, film, time and money to process the film.

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures, transparencies, audio materials, and displays).

Behavioral Objective: 8.1.3.3 The trainee will be able to produce instructional materials for use with the opaque and overhead projectors, slides, and filmstrips.

Activity No.	*Evaluation Criteria*
8.1.3.3.C (continued)	The main disadvantage of the Write-On film strip is that it can utilize only what the developer can draw or print on the frames--no real events nor natural colors or representatives are possible. The main advantage of the Standard camera is that it produces life-like pictures and can combine the real with printed and/or illustrated frames. While these are the most obvious differences and advantages, care should be taken in evaluating any others the trainee may find and offering leeway to him if his choices are defensible or logical.

Capabilities of the Opaque Projector and Associated Materials

1. Provides a common visual experience to any viewing group

2. Illustrations provide visual symbols

3. Visual stimulus can be controlled

4. Anything printed, drawn, or written on a flat opaque surface can be projected

5. Images are projected in full natural color

6. The projector is mechanically simple

7. Can be used for small or large audiences

8. Must be used in a darkened room for light reflection to be effective

9. A projection screen or large wall area of white or nearly white must be available for satisfactory viewing

10. Almost any flat surface can be projected--almost limitless numbers and kinds of materials can be projected without special adaptation or preparation

    (flat printed materials--pictures from magazines, maps, tests, etc.)
    (books--either text or illustration)
    (three dimensional objects--coins, leaves, insects)

11. Even when enlarged several times by projection, many details may not be large enough or clear enough to be seen by viewers at a distance

12. The opaque projector can enlarge or reduce illustrative materials and transfer the image so that it may be copied on other materials, i.e., chalkboard, charts

13. The projected image is static; however, simple movement or progressions can be manipulated by handles which extend outside the machine

14. Most of the materials used are universally available and inexpensive or free

15. The teacher usually stands at the rear of the classroom to control the material within the projector

Capabilities of the Overhead Projector and Transparencies

1. Visuals can be projected large enough to be seen by groups of almost any size
2. The projector is simple to operate
3. The projector is used in front of the room by the instructor, allowing him to remain in close contact with students
4. The instructor has control over the sequencing, timing, and manipulation of materials
5. The projected image is clear and bright
6. The overhead projector can be used in a lighted room--requires no special darkening equipment
7. The transparency is seen on the projector by the instructor exactly as students see it on the screen
8. The transparency may be written upon, pointed to by the instructor during presentation
9. The projection surface is large (10" x 10") allowing the teacher to write information easily and immediately
10. Lines may be drawn with permanent or non-permanent pens, allowing for storage and permanency, and immediate modification or development, or any combination of the two.
11. The overhead projector produces a static image
12. Covering part of the transparency with an opaque material allows for progressive disclosure--control of flow of information
13. Additional transparency sheets may be used as overlays on a base transparency to separate processes and complex ideas into elements and present them in step-by-step order.
14. Either transparent or silhouette figures can be manipulated.
15. Requires transparencies, but these can be prepared by a variety of simple, inexpensive methods
16. In the teaching/learning sequence the overhead projector is useful for the presentation of an idea or process which can be reduced to a limited number of stages which must, at the same time, be seen in visual relationship with each other

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.4 The trainee shall be able to produce materials for motion projection--i.e., 16mm films, 8 and super 8mm films, and 8mm film loops.

Enabling Activities	***Resources***	***Comments***
8.1.3.4.A There are many subjects in which motion plays an important part; motion pictures have the inherent capacity to illustrate these subjects. In addition, the realistic quality of motion pictures often makes them "the next best thing to being there." For the curriculum consultant, motion pictures offer one of the most stimulating, motivating, and captivating modes of expression They are also one of the more expensive and compelx mediums to use if your goal is successful locally produced materials. The production of motion pictures is a flexible task--it can be done alone or in groups; it can be done simply or with a great deal of sophistication; it can be done by the amateur or professional, and, of course, it can be done poorly or it can be done well. The purpose of this activity is to help you in the preparation tasks of motion picture making so that the product will be a success. While the capabilites of 8 and 16mm films differ, the basic production of each is the same. This activi-	8.1.3.4.A 1. Resource File 8.1.3.4.A	

8.1.3.4.A (continued)

in planning and producing a motion picture. The specific materials and objectives are found in Resource File 8.1.3.4.A. You are to complete the activities found there.

8.1.3.4.B

Motion pictures, like most audio-visual materials, are a medium for communication. In order to express ideas accurately you should realize that the forms of expression used in verbal communication are also found in movie sequences. View the films in Resource File 8.1.3.4.B(1). Then use the pictures in 8.1.3.4.B(2) to form at least two story lines, and develop one through the movie paragraph.

8.1.3.4.B

1. Resource File 8.1.3.4.B(1)
2. Resource File 8.1.3.4.B(2)

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures, transparencies, audio materials, and displays).

Behavioral Objective: 8.1.3.4 The trainee will be able to produce instructional materials for motion projection (i.e., 16mm and 8mm films, and television tapes).

Activity No.	*Evaluation Criteria*
8.1.3.4.A	The workbook in Resource File 8.1.3.4.A allows the trainee to progress through the necessary steps in the planning phase of motion picture production. The trainee is instructed to answer the questions or complete the work on a separate sheet as he progresses through the workbook.
8.1.3.4.B	Since the activity calls for each trainee to select his own subject and work with his individual idea throughout the planning phase, each trainee's product must be evaluated individually. The product criteria include appropriateness, thoroughness, suitability, creativity, and comprehensiveness.

Competency Component: 8.1.3 To assist the trainee in describing and ordering prodecures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materails, displays).

Behavioral Objective: 8.1.3.5 The trainee shall be able to construct effective displays.

Enabling Activities

8.1.3.5.A

There are several different types of displays, including bulletin boards, instructional display boards like the hook and loop or magnetic or peg or flannel boards, and educational exhibits. Although each has definite advantages and disadvantages, they are usually used for similar purposes, i.e., to enrich instruction, motivate learning, stimulate interest, visualize abstract concepts, visualize experiences or objects not available as real objects, reinforce other stimuli, provide a review, present single-copy materials to multiple viewers.

The same basic considerations used to develop any instructional product should be studied before preparing a display; namely, what is the purpose of the display, what is the subject or topic to be presented, for whom is the display intended, what are the objectives the display is to meet, is a display the best way to reach the objectives, is an equally effective presentation available commercially, does the value of the display warrant the time and energy spent on it, and are the materials available to create an effective display? If these considerat-

Resources

8.1.3.5.A

1. Brown, Lewis, Harcleroad. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 410-424, 248-434.
2. Lockridge, J.P. Better Bulletin Board Displays. In Bridges for Ideas. University of Visual Instruction Bureau, Division of Extension. Pp. 18-58.
3. Resource File 8.1.3.5.A

Comments

8.1.3.5.A

Your final discussion and evaluation should include some insight into the purpose of the display, the objective it is designed to fulfill, and the appropriateness of the medium as well as the application of design principles to the production.

8.1.3.5.A (continued)

time to play your presentation. You, as a curriculum consultant, will have many opportunities to promote your own ideas, reinforce previous experiences, and stimulate interest through displays if you learn to plan and prepare them well.

The Resource section for this activity contains two sources which discuss how to plan and prepare you display and the elements of design which can be studied to help produce effective displays. You are familiar with some of these principles already. Study these materials and the illustrations given until you understand the elements. Then test your comprehension: go to Resource File 8.1.3.5.A and from the slides of displays presented there, pick two to discuss and evaluate.

8.1.3.5.B

Pick a topic, purpose, audience, and objective of your own and develop at least two layouts which you could use.

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.5 The trainee shall be able to construct effective displays.

Activity No.	*Evaluation Criteria*
8.1.3.5.A & 8.1.3.5.B	The ultimate goal of this behavioral objective is to enable the trainee to develop effective displays. While a curriculum consultant may not be directly involved in the actual production of displays, he will be involved in the developmental process. It is, therefore, important that he know how to both plan a display himself, and evaluate either someone else's plan or presentation.

Activity 8.1.3.5.A provides the trainee, either in the Activity section or with the sources in the Resource section, with the following information:

1. Purposes of displays:
   - A. To enrich or supplement other instruction
   - B. To motivate learning
   - C. To stimulate interest
   - D. To visualize abstract concepts
   - E. To visualize experiences or objects available as real objects
   - F. To reinforce other stimuli
   - G. To provide a review
   - H. To make available single-copy material for multiple viewers.

2. Basic considerations before producing instructional products:
   - A. Is there a definite purpose for this display?
   - B. Is there a definite subject for this display?
   - C. Is there a well defined audience for this display?
   - D. Is there a definite objective(s) for the display?
   - E. Is a display the most appropriate mode to reach the audience, purpose, and objective?
   - F. Is there an equally effective presentation available commercially?
   - G. Does the value of the display warrant the expense of production?
   - H. Are there sufficient materials available to create an effective display?

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.5 The trainee shall be able to construct effective displays.

Activity No.

8.1.3.5.A &
8.1.3.5.B
(continued)

Evaluation Criteria

3. Planning a display:
   - A. Carefully consider purpose, subject, audience, objectives, etc.
   - B. Start with an idea, not a picture.
   - C. Make sketches which incorporate the elements of design:
     - 1) Attract attention: Involve the viewer by captions, manipulatives, etc., have a strong center of interest with contrasting colors, unusual shapes, three-dimensional objects, material arrangements; create a pleasing over-all effect.
     - 2) Hold interest by guiding viewers eye: arraugement of materials, repetition of colors, shapes, and textures, position of figures, use of "gimmicks."
     - 3) Achieve balance: symmetrical arrangement - formal balance; informal balance = two small shapes balance a larger one, small shape placed low balances a larger one placed high, brightly colored small shape balances a large dull shape, a small, interesting, or unusual shape balances a large ordinary one; or these elements may be discussed as:
       - 1) Harmony: all elements go together
       - 2) Contrast: in colors, materials, textures, for variety and emphasis
       - 3) Balance: Formal or informal
       - 4) Emphasis: Main idea dominant through colors,* lettering, "directionals"
       - 5) Shape: Configuration pattern present (most common: I, S, T, Z.)
   - D. Pre-arrange materials (may try magazine lay-out)
     - 1) Thumbnail sketch - simple space division
     - 2) Configuration (underlying shape) added
     - 3) Add display elements
     - 4) Add emphasis and contrast
   - E. Select captions
   - F. Construct materials as necessary (includes mounting)
   - G. Select background
   - H. Attach Materials

* Color - Keep it simple - monochrome to sharp contrast, analogous color, complementary color, warm and cool color. Color creates a mood as well as attracts attention--Black and white most powerful if used well.

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.5 The trainee shall be able to construct effective displays.

Activity No.	*Evaluation Criteria*
8.1.3.5.A & 8.1.3.5.B (continued)	These are the elements the trainee should use in his discussion of the displays he selects in 8.1.3.5.A. How well he applies them must determine his competency. If he cannot identify the purpose, objective, and elements of design, the instructor should discuss the material with him, give him additional sources (i.e., Educational Displays and Exhibits, Instructional Display Boards, Designing Instructional Visuals), then let him select another display to discuss. The eye can be trained but practice as well as intellectual understanding is necessary. Activity 8.1.3.5.B requests the trainee to apply what he studied in 8.1.3.5.A; he is to produce thumbnail sketches for evaluation by the advisor. The criteria for judging the trainee's efforts are the same he used to judge the illustrations in 8.1.3.5.A. If there is any question on the trainee's competence here, he should be able to explain his product and this would provide a further check for the instructor.

Competency Component: 8.1.3 To assist the trainee in describing and ording procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials displays).

Behavioral Objective: 8.1.3.6 The trainee shall be able to reproduce and preserve materials for classroom use.

Enabling Activities	*Resources*	*Comments*
8.1.3.6.A	8.1.3.6.A	8.1.3.6.A
AV Instruction: Media and Methods contains an excellent self-instruction guide on the duplication processes. The four forms of reproduction discussed are spirit duplication or hectographing, mimeographing, photocopying, and printing; you should be familiar with all the processes, although you will probably have the most contact with hectographing and mimeographing. Devote as much time and energy as you need to become thoroughly familiar with this material. Then, since the same standards apply regardless of the process to be used, develop a list of criteria for evaluating a master copy. Three illustrative materials, reproduced from master copies, are in Resource File 8.1.3.6.A. Identify the process used in each and evaluate the copy using the criteria you developed. You may add to your criteria if you find that necessary. When you are satisfied with this activity, submit it to your advisor.	1. Brown, Lewis, and Harcleroad. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 575-588.	You are not specifically directed to apply any of the reproduction processes discussed in this activity; if you are not familiar with a mimeograph machine or a hectograph machine, it would be advisable for you to see them perform and even operate them until you feel competent.
8.1.3.6.B		
Many valuable instructional ma-		

8.1.3.6.B

Many valuable instrucitonal materials should be mounted and/or preserved; properly mounted they look better, they can be handled, and they last much longer. Several of the easiest and most common means of mounting materials are described on the films listed in the Resource section and available at the Instructional Media Lab.

Review these films and make quick notes on "how-to" that you could do in the future. Include in your notes directions for using self-sealing acetate and double coated acetate as described in the Resource section of this activity.

8.1.3.6.B

1. McGraw-Hill Text Films:

F00051	Dry Mounting (hand irom)
F00052	Permanent Rubber Cement Mounting
F00053	Mounting: Overcoming dry mounting problems S-3 (need more how-to with this one)
F00054	Mounting: Using laminating film
F00055	Cloth Mounting (roll) roll of cloth and hot iron
F00056	Cloth Mounting (fold) Part I
F00057	Cloth Mounting (fold) Part II

2. Double-Coated Acetate:

Double coated acetate is a thin plastic sheet with pressure sensitive adhesive on both sides. The only additional materials required are scissors and a mounting board. In order to use the process, first cut the acetate to the same size as the visual; peel the glassine paper to expose one sticky side; apply sticky side to surface of mounting board; peel glassine from remaining side of acetate; apply visual to sticky side of exposed acetate.

8.1.3.6.B

Again in this activity you have not been requested specifically to perform the processes described. If, however, you have never seen or done these activities, it might be wise for you to run through the ones with which you are unfamiliar.

8.1.3.6.B (continued)

2. (continued)

Self-Sealing Acetate:

This process of laminating materials uses transparent acetate sheets with pressure seneitive adhesive on one side that permanently bonds on contact. The only other materials needed are scissors and a pencil. To use this process, cut two pieces the size of the visual or large enough to allow for a transparent margin if desired. Peel glassine paper from adetate; apply visual to sticky side of acetate; remove glassine paper from second piece of acetate; apply second piece of acetate to face of visual by positioning the leading edge of acetate (adhesive side doen) even with the first sheet; rub; run a pencil around edge to complete the lamination.

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.6 The trainee shall be able to reproduce and preserve materials for classroom use.

Activity No.	*Evaluation Criteria*
8.1.3.6.A	Since the trainee has been given the material from which to draw his list of criteria, this should be a relatively simple task. At least the following should be included:

1. Materials are organized
    - A. Materials are edited and unimportant or confusing materials are omitted
    - B. Headings, captions, titles are inserted and used as needed
    - C. Headings, and headings and text, are consistent in their wording
    - D. Statements have parallel construction and are grammatically correct
    - E. Statements and/or outlines are correct and consistent
2. Materials are neat and legible
    - A. Adequate margins are provided
    - B. Copy has been "justified" or evened off
    - C. Copy is double-spaced or has sufficient space between lines
    - D. Type is clean
3. Materials have been proofread and corrected. (Each method of correcting varies but all can be done neatly and efficiently.)
4. An attractive layout has been used.
    - A. Paragraphs indented, capital letters and accurate punctuation
    - B. Type styles varied
    - C. Special effects (color or guide-lettered headings or rule boxes used for emphasis)
    - D. Origninal art work or lettering incorporated when appropriate
5. Most appropriate reproduction method used

In the second part of this activity the trainee is instructed to identify the three processes used to produce the copies in Resource File 8.1.3.6.A and use his criteria to evaluate these copies. Each evaluation will differ and should be judged by how well the criteria are applied to the products.

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.7 The trainee shall be able to produce audio materials including tape recordings, language master presentations.

Enabling Activities	*Resources*	*Comments*
8.1.3.7.A The use for audio materials, in both regular and special classrooms, are myriad. They may be used alone or with other mediums; they may be used individually or by small to large groups; they may be used to test, evaluate, instruct, enrich, they may be used by media technician, teacher, or student; they may be used as recorded or in an altered form. But most important, they should be used. As a curriculum consultant, you will find many opportunities to capitalize upon the capabilities of locally produced audio materials. Audio materials, i.e., phonograph recordings, tape recordings, both regular and cassette, and language master presentations, all share the sound-equipment principles discussed on pp. 530-531 of Brown, Lewis, Harcleroad. Read this material and then skim through the material on reocrd players and disk recordings; pp. 535-542 discuss tape players and tape recordings. This is the type of recording you are most likely to use and should understand. Therefore, read thses pages, plus the other materials listed in the Resource and record your answers to	8.1.3.7.A 1. Brown, J. W., Lewis, R. B., and Harcleroad, F. F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 530-542. 2. The Tape Recorder. In Bridges for Ideas. The University of Texas: Visual Instruction Bureau, Division of Extension. 3. Resource File 8.1.3.7.A 4. Cassette recorder 5. Reel-to-reel recorder 6. Music	

Behavioral Objective *Continued:*

8.1.3.7.A (continued)

1. What kind of special facilities are needed to make tape recordings?
2. Examine this piece of recording tape. Describe how it looks and feels.
3. Describe the process and/or principles which allow sound to be recorded upon tape.
4. What does IPS mean?
5. What are the three most common tape speeds, IPS?
6. What happens to the quality of reproduction as the tape travels faster? What happens to the cost per tape as the higher speeds are used?
7. Why is there a need for different speeds?
8. Take a minute to experiment. Do the following exercies: Record either a record or a song on both a cassette tape recorder and on a IPS. Describe what you hear.
9. The speed of a cassette is_____. How will this affect the possible uses of the cassette?
10. Give at least three examples of uses for both 7 1/2 and 1 7/8 tapes.

Behavioral Objective *Continued:*
8.1.3.7.A (continued)

11. Describe two methods of recording on a tape from a radio or phonograph. Which is better and why?

12. Tape duplication can be very successful. What are four suggestions for producing good tape duplications?

13. Original tapes may be of two types--the recording of spontaneous events or the recording of pre-planned materials. If the material to be recorded has been planned in advance, what preparations should be made prior to the actual taping? What procedures should be followed during the recording session?

14. Both spontaneous and preplanned tapes can be edited. Explain briefly how this is done.

15. Sound may be recorded on magnetic-striped motion picture film. How is this done?

16. Language master presentations may use sound. What type of recording instrument do they use?

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.7 The trainee shall be able to produce audio materials including tape recordings, language master presentations.

Activity No. *Evaluation Criteria*

8.1.3.7.A

This activity is designed to acquaint the trainee with the following areas: tapes and tape recorders, tape duplication, original tape production, tape editing, and specialized recordings like the magnetic-striped motion picture film and language master presentations. The trainee uses the tape recorder, both reel-to-reel and cassette, to answer the questions which direct as well as test his comprehension of the materials on audio systems. The answers to the questions follow:

1. What kind of special facilities are needed to make tape recordings?
   A. No special facilities are necessary; however, if your goal is a high quality product, a recording room or an improvised booth, with sound somewhat deadened, and recording in quiet hours helps to eliminate extraneous noise.

2. Examine this piece of recording tape. Describe how it looks and feels.
   A. Tape is a supple plastic with two distinct sides, one shiny, glossy and the other dull--this is the working side and is covered with a thin coat of iron oxide.

3. Describe the process and/or principles which allow sound to be recorded upon tape.
   A. To record sound, magnetic fields are set up--the sound vibrations are transferred in a pattern to the tape; when the tape is played, the magnetic field generates electrical impulses which are picked up in the machine, amplified, and reproduced as sound.

4. What does IPS mean?
   A. Inches per second.

5. What are the three most common tape speeds, IPS?
   A. 1 7/8, 3 3/4, 7 1/2.

6. What happens to the quality of reproduction as the tape travels faster? What happens to the cost per tape as the higher speeds are used?
   A. Generally, the faster the tape travels, the better quality the sound. As the tape travels faster, more tape is used to

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.7 The trainee shall be able to produce audio materials including tape recordings, language master presentations.

Activity No.	*Evaluation Criteria*
8.1.3.7.A (continued)	produce the same sound; therefore, it is more expensive - 7 1/2 would be 3 times as expensive as 1 7/8.

7. Why is there a need for different speeds?
   A. Music requires higher fidelity and better quality reproduction; when voice only is needed and quality is less important or economy of tape is important, the 3 3/4 IPS is fine.

8. Take a minute to experiment. Do the following exercise; Record either a record or a song on both a cassette tape recorder and on a reel-to-reel recorder at 7 1/2 ips. Describe what you hear.
   A. The music on the cassette is far inferior—the low tones and percussion are all right, but the string instruments and high notes are fluttery.

9. The speed of a cassette is_____? How will this affect the possible uses of the cassette?
   A. 1 7/8 ips. The speed will be a factor only if high fidelity, music, or economy are important.

10. Give at least three examples of uses for both 7 1/2 and 1 7/8 tapes.
    A. Will vary but illustrations might be: 7 1/2 - speech correction work, phonics work, music, sound discrimination, listening skill work; 1 7/8 - student made tapes, repetition or drill work, simple instructions.

11. Describe two methods of recording on a tape from a radio or phonograph. Which is better and why?
    A. Recording may be done through a microphone or through a patch cord which connects the components of the tape recorder and the original source. The patch cord is superior for two reasons: input is low level for a microphone, produces a weak current; the microphone picks up surrounding room noise as well as the desired material. Patch cord is high level input and records only the desired sound.

12. Tape duplication can be very successful. What are four suggestions for producing good tape duplications?
    A. Many answers are appropriate here--they might include: make tone adjustments before recording; test recording and

Competency Component: 8.1.3 To assist the trainee in developing various forms of teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.7 The trainee shall be able to produce audio materials including tape recordings, language master presentations.

Activity No.

8.1.3.7.A (continued)

Evaluation Criteria

playing levels before taping; record 3 3/4 tape at 7 1/2 and save time; you may duplicate different speeds at different speeds; have microphone steady; use patch cord if possible.

13. Original tapes may be of two types--the recording of spontaneous events or the recording of pre-planned materials. If the material to be recorded has been planned in advance, what preparations should be made prior to the actual taping? What procedures should be followed during the recording session?
    A. Prior to the taping: Narration script written, tested, and revised; script typed full width, triple spacing, with cues, pauses, special emphasis, pronunciation all noted on each separate sheet; presentation rehearsed at least once. Taping procedures: Attach microphone securely; test equipment and placement of the microphone from narrator's mouth; make a volume check; rehearse once and record; play back recording immediately to determine its acceptibility.

14. Both spontaneous and pre-planned tapes can be edited. Explain briefly how this is done.
    A. Listen to the tape--list spots to be edited--return to first spot and pinpoint the spot by moving the tape manually back and forth across the playback head--mark cutting point with a grease pencil on back (shiny side of tape)--cut tape and splice ends together or add tape--repeat procedure.

15. Sound may be recorded on magnetic-striped motion picture film. How is this done?
    A. The projector acts as the recorder and a microphone provides the input.

16. Language master presentation may use sound. What type of recording instrument do they use?
    A. Recorder.

Competency Component: 8.1.3 To assist the trainee in describing and ordering prodecures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.8 The trainee shall be able to develop programmed instruction materials.

Enabling Activities	*Resources*	*Comments*
8.1.3.8.A The development of programmed instructional materials is not an easy task. Nor is it anything but an expensive task in terms of the developer's time and energy. But it is also a rewarding task and one you should understand and be capable of performing. The Resource section of this activity includes a file and a book. Read the book first, then go to the file. Complete the work assigned in the Resource File; discuss any remaining problems with your SECTraC advisor. You have your choice of two options for this part of the activity; choose the option you feel would be most applicable to your career plans. You are to develop either the Introduction to Developing Programmed Instructional Materials by Espich, J. E., and Williams, B. (Palo Alto, California: Fearon Publishers, 1967) into a programmed sequence, or develop a lesson of your own choosing into a programmed sequence that benefits special children.	8.1.3.8.A 1. Espich, J. E., and Williams, B. Developing Programmed Instructional Materials: A Handbook for Program Writers. Palo Alto, California: Fearon Publishers, Inc., 1967. 2. Resource File 8.1.3.8.A	

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.8 The trainee shall be able to develop programmed instruction materials.

Activity No.

8.1.3.8.A

Evaluation Criteria

1. Define and explain what is meant by the term "Programmed Instruction."

   A. Definition: "Programmed Instruction" is a planned sequence of experiences leading to proficiency, in terms of stimulus-response relationships, that have been proven to be effective.

   "Program" - A prepared educational device

   "Planned" - plotted by a programmer who determines not only what experiences the learner is to participate in, but also

   "Sequence" -what order the experiences should occur.

   "Experiences" - Activities in which the learner participates rather than merely observes.

   "Proficiency" - implies that the end goals and objectives are understood and that learning is directed toward them.

   "Stimulus Response Relationships"-The basic behavioral science concepts that stimuli elicit a reaction from an organism.

   "Proven Effective" - Tested with appropriate audience who exhibit the desired proficiency when finished.

2. Define the following terms:

   Learning: A change in behavior

   Stimulus: Anything that elicits, or results in, a reaction from an organism

   Response: Any reaction to a stimulus

   Positive reinforcement: An additive process, a stimulus that is added to the student after his response-one that satisfies one or more basic human drives.

   Negative reinforcement: Subtractive process, a stimulus is removed or a noxious stimulus presented to the student after his response has been made

   S^{d}-: Discrimination stimulus

   S^{Δ}: Nondiscrimination stimulus

   S^{P}: Prompt stimulus

   Cue: A mechanical aid that enables the student to make the desired response

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.8 The trainee shall be able to develop programmed instruction materials.

Activity No.

8.1.3.8.A (continued)

Evaluation Criteria

Prompt: Usually a verbal hint or help, but may be an illustration, generally a transposed iteration

Adjunct: Subordinate to and in support of (Caps)

Frame: One step of a program

Gate Frames: Frames that direct the student to a different portion of a linear program

Home page frames: Basic information frames

Remedial frames: Give remedial instruction and redirect students to home page frame

RAM frames: Repeat after me

90/90 standard: The first 90 represent- S the class mean, considering all the students, and must be 90% or better. The second 90 represents the qualification that 90% of the students will achieve each and every objective of the program.

3. Define and explain the following:
   1. The activities in writing a program:
      Writing a program is divided into the following divisions: the preparation which consists of the analysis of material to be programmed, construction techniques which consists of analyzing the material and putting it into appropriate PI form, editing the material after it has been formulated to determine that it has been arranged and constructed in the best manner, and testing to revise where necessary in order to make the program valid and efficient.

   2. The three types of observable or measurable results of change in behavior.
      The three types of measurable results of learning are: Psychomotor, or Muscular actions that require a minimum amount of mental activity on the part of the performer, cognitive, or the area of knowledge, including the mental process with which a student becomes involved while learning, and the affective, or that which deals with a student's attitude about or feeling toward something.

   3. What constitutes knowledge skills?
      The knowledge skills consist of those that allow the student to make generalization, or elicit a single response from several similar yet different stimuli: to make discrimi-

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.8 The trainee shall be able to develop programmed instruction materials.

Activity No.	*Evaluation Criteria*
8.1.3.8.A (continued)	

nation, or elicit a different response for two or more similar but not identical stimuli, perhaps to choose a correct solution from among several similar yet different solutions; to supply the steps within a chain, or using a series of stimuli and responses wherein the response to the first stimulus becomes the stimulus for the next response and so on.

4. The relationship between overt and covert responses. Overt responses can be observed and covert responses cannot, yet an overt response (i.e., picking up a pencil) cannot be made before a covert response (the students thinks he needs a pencil to mark the appropriate answer to the question and must hold it) is made.

5. The three kinds of editing-composition, programming, and technical accuracy. Composition editing is that which checks the program for errors in the way it is arranged-the rules of grammar and english composition, the mechanical aspect of the material, the consistency throughout the program of what the student is supposed to do; program technique edit-check for continuity of the program, the development of ideas, the size of the steps taken, quality and aptness of the illustration: Program technique edit-an appraisal of each individual frame for internal accuracy, inadequacy, and relevancy, as well as amount of material covered; technical accuracy edit, which allows a subject matter expert to determine if the material is technically correct.

4. List at least 8 criteria you feel would be important in determining the feasibility of developing a Programmed Instructional Material.
   - A. Is the subject matter stable?
   - B. Is a program already available?
   - C. Can you prepare the program in the allotted time?
   - D. Is there a training problem to be solved?
   - E. Are the desired objectives of the training realistic?
   - F. Can PI ease the instructor's burden?
   - G. Can standardization be achieved?

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.8 The trainee shall be able to develop programmed instruction materials.

Activity No.

8.1.3.8.A
(continued)

Evaluation Criteria

H. Will the results justify the expense?
I. Will the number of students justify the expense?
J. Will the program save human lives?
K. Can PI reduce training time?
L. Can the desired results be measured?
M. Is there an exception?

4. List and define the following:
   1. Three phases present in the analysis of material:
      A. Observation phase-programmer watches and records the performance of the task at the same level of proficiency to be required of the learner and records carefully what is done and why.
      B. Curriculum phase-examination of course documents (syllabus, instructor's guides, lesson plans, student study guides, and work books, existing examinations).
      C. Subject matter expert interview phase-determine what is to be taught and the depth to which it must be taught.

   2. The five levels of learning:
      A. Exposure level-enrichment material-lends a degree of smoothness and direction to a program but is not necessary for students to retain
      B. Recognition level-make very broad discriminations
      C. Recall level-define, with the student using his own words
      D. Memory level-repeat knowledge already gained verbatim
      E. Concept level-application of knowledge gained

   3. The two methods for diagramming materials to be programmed:
      A. Flow charts
      B. Schematics

   4. The construction techniques used in PI:
      A. Discrimination frame sequence-select from the responses given
      B. Constructed response frame sequence-student supply answer
      C. Branching frame sequence-correct responses go ahead; incorrect to branches
      D. Retrogressive chaining-mastery step-demonstrate, prompt, release

Competency Component: 8.1.3 To assist the trainee in describing and ordering procedures for production of common teacher-made materials (i.e., manipulatives, graphics, pictures and transparencies, audio materials, displays).

Behavioral Objective: 8.1.3.8 The trainee shall be able to develop programmed instruction materials.

Activity No.	*Evaluation Criteria*
8.1.3.8.A (continued)	

E. Baboon frames (both, choice A., choice B.,or neither
F. Adjunct programming-written text & in support of a well PI as an aid, subordinate
G. Adjustive devices-means of compensating for individual differences within group

5. 3 types of testing used to substantiate the process:
   1. One to one testing
   2. Small group testing
   3. Field testing

6. List some "do's for good program writing:
   1. Do have a methodical and logical line of development
   2. Do have continuity and cohesion
   3. Do have meaningful examples
   4. Do provide for success and positive reinforcement
   5. Do challenge the learner
   6. Do, if necessary, include enrichment materials
   7. Do make the objectives clear and obtainable

Project No. 351359
OEG-0-71-3675(603)

Special Project
PROTOTYPE TRAINING PROGRAM FOR THE PREPARATION OF CURRICULUM CONSULTANTS FOR EXCEPTIONAL CHILDREN

INSTRUCTOR'S MANUAL

for

Module 8.0 Developing / Materials and Media

Competency 8.2 The curriculum consultant should be capable of maximizing the use of instructional media by the teaching staff.

May 1974

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Department of Health, Education, and Welfare

U.S. Office of Education
Bureau of Education for the Handicapped
Division of Training

EC 123143

Project Staff

Edward L. Meyen, Project Director
Reuben Altman, Co-Director

University of Missouri-Columbia

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I. Interim Report: Competency Research Phase
II. Interim Report: Module Specification Phase
III. Interim Report: Dissemination Phase

INSTRUCTOR'S MANUAL

MODULE #8: Developing / Materials and Media

MODULE ELEMENT SCOPE:

This module is designed to provide you with knowledge of how to maximize the use of instructional materials by the teaching staff. To do this you need to know what materials are available for use, how to determine what use is currently being made of the materials, and how resources and procedures can be manipulated to increase use. The experiences provided within the element are planned to provide basic information and resources as well as opportunities to apply what you have learned. The ideological, what should be done, the current, what is done, and the practical, what of the best can be done, are all included. Within the practical limits of time and energy you are encouraged to develop some insights into the areas of educational media, tests and measurement, human psychology, and educational administration, but all as they apply to the maximizing of the use of instructional media by the teaching staff.

MODULE ELEMENT SPECIFICATIONS:

Competency 8.2: The curriculum consultant should be capable of maximizing the use of instructional media by the teaching staff.

Competency Components:

8.2.1 To assist the trainee in identifying available sources of instructional materials (i.e., the IMC network, media facilities, teachers collections).

8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Conference Record

Trainee's Name ______________________________

Phone ______________________________

Address ______________________________

Other Modules in Progress ______________________________

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Date: __________ Reason: ______________________________

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Conference Record (continued)

Date: ____________ Reason: ____

Pre-Assessment Performance	Activity Performance	Post-Assessment Performance	BEHAVIORAL OBJECTIVES TO BE ACHIEVED IN THIS MODULE ELEMENT	Cross-Reference
			8.2.1.1 The trainee will be able to identify at least five sources of instructional materials available to Special Education teachers in a given school system.	
			8.2.1.2 The trainee will be able to identify at least five resources for instructional materials available locally.	
			8.2.1.3 The trainee will be able to identify at least four resources for instructional materials available from state and national sources.	
			8.2.2.1 The trainee will be able to describe four methods of collecting data from school personnel on the use of instructional materials.	
			8.2.2.2 The trainee will be able to develop appropriate techniques (i.e., questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.	
			8.2.2.3 The trainee will be able to utilize the records of the I.M.C. or the lending facilities, to ascertain the use of materials by school personnel.	
			8.2.2.4 The trainee will be able to design a comprehensive record keeping system for materials used and evaluated by school personnel.	
			8.2.3.1 The trainee will be able to develop organizational procedures and practices which facilitate the use of instructional materials by the teaching sraff.	
			8.2.3.2 The trainee will be able to initiate and coordinate the implementation of changes which lead to greater staff utilization of instructional materials.	

Pre-Assessment Performance	Activity Performance	Post-Assessment Performance	BEHAVIORAL OBJECTIVES TO BE ACHIEVED IN THIS MODULE ELEMENT (continued)	Cross-Referen
			8.2.3.3 The trainee will be able to develop creative, innovative means of promoting the use of instructional materials.	
			8.2.3.4 The trainee will be able to develop an in-service training program on instructional materials.	

Upon successfully demonstrating competence in a behavioral objective (through pre-assessment performance, enabling activity performance, or post-assessment performance), have a SECTraC staff member initial the appropirate box. When a behavioral objective is cross referenced to other Module Elements, be sure to have it initialed there simultaneously.

Resource File

The following activities have resource files. Each file contains material essential to the activity. Articles and reference materials have not been placed in resource files. Reference materials may later be duplicated and put into resource files in order to make the modules more complete as instructional packages.

8.2.1.1.A(1)

8.2.1.1.A(2)

8.2.1.2.A

8.2.2.1.B(1)

8.2.2.1.B(2)

8.2.2.2.A

8.2.2.2.B(1)

8.2.2.2.B(2)

8.2.2.2.D(1)

8.2.2.2.D(2)

8.2.2.3.A

8.2.2.3.B

8.2.3.3.A

8.2.3.3.B

8.2.3.4.A(1)

8.2.3.4.A(2)

8.2.3.4.B

8.2.3.4.C

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.2.1 To assist the trainee in identifying available sources of instructional materials (i.e., the I.M.C. network, media facilities, teachers collections).

Behavioral Objectives:

8.2.1.1 The trainee will be able to identify at least five sources of instructional materials available to Special Education teachers in a given school system.

8.2.1.2 The trainee will be able to identify at least five resources for instructional materials available locally.

8.2.1.3 The trainee will be able to identify at least four resources for instructional materials available from state and national sources.

Competency Component: 8.2.1 To assist the trainee in identifying available sources of instructional materials (i.e., the I.M.C. network, media facilities, teachers collections).

Behavioral Objective: 8.2.1.1 The trainee will be able to identify at least five sources of instructional materials available to Special Education Teachers in a given school system.

Enabling Activities	*Resources*	*Comments*
8.2.1.1.A Many new teachers have never had a course in instructional media. Their only contact with these teaching aids may have been through their observations of other teachers. Although many states now require a media course for certification, and many curriculums recommend media courses, the fact remains that too many teachers, both new and experienced, lack formal training in the capabilities, development, and use of instructional media. The curriculum consultant is in an excellent position to both use media and advocate the use of media by others. But the novice must be given help in identifying what materials and equipment are available and where they can be found. Teachers do not work in a vacuum. Within most school systems there are resources available, both personnel and vacilities. The video tape in File 8.2.1.1.A(1) shows a teacher seeking available instructional materials for an intermediate unit on "Time."* As you view this tape, list the resources the teacher uses within	8.2.1.1.A 1. *Meyen. E.L. Developing Units of Instruction: For the Mentally Retarded and Other Children with Learning Problems. Dubuque, Iowa: Wm. C. Brown Co., 1972. Pp. 77-117--further discussion of this unit: 2. Resource File 8.2.1.1.A(1) 3. Resource File 8.2.1.1.A(2)	

8.2.1.1.A (continued)

the school system. This list will give you several sources of instructional materials available to Special Education teachers. Add any other resources you can identify.

A checklist is provided you in File 8.2.1.1.A(2). Compare your list with this list; make at least two additions to the checklist you feel appropriate.

Competency Component: 8.2.1 To assist the trainee in identifying available sources of instructional materials (i.e., the I.M.C. network, media facilities, teacher collections).

Behavioral Objective: 8.2.1.1 The trainee will be able to identify at least five sources of instructional materials available to Special Education teachers in a given school system.

Activity No. — *Evaluation Criteria*

8.2.1.1.A

The checklist provided the trainee's in this activity is also the criteria for evaluation. This is actually an elementary type exercise and one the trainee can easily check himself on. The only need for further evaluation is if the trainee wishes to discuss or clarify the material.

Checklist for Sources of Instructional Materials Available to Special Education Teachers in a Given School System

1. Other Teachers
    - A. Teacher inventories of their own materials
    - B. Teacher's lesson and unit plans
    - C. Discussion with teachers on instructional materials
2. Media Facilities
    - A. The Instructional Materials Center
        - 1. Commercially prepared materials-catalogued and available
        - 2. Professional literature
        - 3. Catalogues of materials which can be ordered for classroom use
        - 4. Evaluations of available materials
        - 5. Files of instructional units and materials used
    - B. Production Facility (teachers' workroom)
        - 1. Samples of types of materials which can be produced
        - 2. Records of instructional materials which have been produced
3. Personnel
    - A. Supervising teachers-area consultants
        - 1. Source of ideas
        - 2. Source for available materials in specialized area
    - B. Learning Resource Director-Librarian-Media Specialist
        - 1. Specialized knowledge of print and non-print materials available
        - 2. Source for new uses of existing materials

Checklist for Sources of
Instructional Materials Available
to Special Education Teachers in
a Given School System

1. Other Teachers

    A. Teacher inventories of their own materials
    B. Teacher's lesson and unit plans
    C. Discussion with teachers on instructional materials

2. Media Facilities

    A. The Instructional Materials Center

        (1) Commercially prepared materials--catalogued and available
        (2) Professional literature
        (3) Catalogues of materials which can be ordered for classroom use
        (4) Evaluations of available materials
        (5) Files of instructional units and materials used

    B. Production Facility (teachers' workroom)

        (1) Samples of types of materials which can be produced
        (2) Records of instructional materials which have been produced

3. Personnel

    A. Supervising teachers--area consultants

        (1) Source of ideas
        (2) Source for available materials in specialized area

    B. Learning Resource Director--Librarian--Media Specialist

        (1) Specialized knowledge of print and non-print materials available
        (2) Source for new uses of existing materials

Competency Component: **8.2.1 To assist the trainee in identifying available sources of instructional materials (i.e., the I.M.C. network, media facilities, teachers collections).**

Behavioral Objective: **8.2.1.2 The trainee will be able to identify at least five resources for instructional materials available locally.**

Enabling Activities	*Resources*	*Comments*
8.2.1.2.A Curriculum ocnsultants and Special Education teachers work in a larger environment than their immediate academic community. The educator who knows and interacts with the people, organizations, and businesses within his school district makes many contacts which can be profitable. These contacts serve two valid functions: they encourage communication between school, personnel and the community and help in the area of good public relations; the contacts also produce excellent sources of instructional materials which are often free or inexpensive and of very good quality. For example, a local paint store may donate out-of-date wallpaper books for school use, or a local policeman may offer to speak on bicycle safety. The most serious limiting factor in using locally available instructional materials is the failure of the developer to identify the resources which are present. Two textbooks are listed in the Resource section which discuss community resources. Read these, if needed, to complete the follwoing assignment:	8.2.1.2.A 1. Resource File 8.2.1.2.A 2. Wittich and Schuller. Audio-Visual Materials. New York: Harper and Brothers, 1953. Pp. 225-245. 3. Brown, W., Lewis, R.B., and Harcleroad, F.F. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 133-153, 389-406.	8.2.1.2.A Remember that real things, both people and places, are classified as instructional materials.

Behavioral Objective *Continued:*

8.2.1.2.A (continued)

A list of potential sources of locally available instructional materials as provided in Resource File 8.2.1.2.A. Your assignment is to list under each heading several examples of the types of materials available which could be used by Special Education teachers.

Competency Component:	8.2.1	To assist the trainee in identifying available sources of instructional materials (i.e., the I.M.C. network, media facilities, teachers collections).
Behavioral Objective:	8.2.1.2	The trainee will be able to identify at least five resources for instructional materials available locally.

Activity No.

Evaluation Criteria

8.2.1.2.A

A relatively complete list of examples for this activity follows this page and may be used to evaluate the trainee's effort. The importance of this exercise lies in the trainee being able to recognize the wide range of potential resource materials available. The exact examples, or the number of examples, is not as important as the insight shown. If the trainee appears to limit his thinking to the standard and obvious (i.e., magazine pictures) it might be wise to refer him to

> Brown, James W., Lewis, Richard B., and Harcelroad, Fred F. AV Instruction : Media and Methods. New York: McGraw-Hill Book Company, 1969. Pp. 389-407, 372-380, 198,214.
>
> and
>
> Erickson, C. Administering Instructional Media Programs. New York: MacMillan 1968. Pp. 58-59.

I. The home
   A. Magazines
   B. Books
   C. Newspapers
   D. Real objects (i.e., light bulbs, clocks, tooth brushes, etc.)
   E. Records of experiences (i.e., slides, films, tape recordings)
   F. Collections (i.e., flowers, buttons, butterflies)
   G. Tools (hammers, cookbooks, blue prints)

II. Places to visit
   A. Museums
   B. Stores
   C. Farms, dairies
   D. Municipal Buildings (i.e., courthouse, city hall, library, power and light plant, etc)
   E. Newspapers
   F. Factories (clothing, bakeries)
   G. Hospitals and health facilities
   H. Banks
   I. Florist--green houses

Competency Component:	8.2.1	To assist the trainee in identifying available sources of instructional materials (i.e., the I.M.C. network, media facilities, teachers collections).
Behavioral Objective:	8.2.1.2	The trainee will be able to identify at least five resources for instructional materials available locally.

Activity No.

8.2.1.2A (continued)

Evaluation Criteria

III. Resource people to visit
  - A. Professionals--doctors, dentists, health authorities politicians, judges, lawyers
  - B. Tradesmen--store keepers
  - C. Craftsmen--carpenters, painters, gardeners

IV. Resource people who will come to the school
  - A. Professionals
  - B. Tradesmen
  - C. Craftsmen
  - D. Parents of school children

V. Merchants who might contribute materials

  - A. Paint and wallpaper stores often will supply out-of date or surplus supplies
  - B. Lumber yards or construction companies often will provide scraps or leftover materials
  - C. Newspapers may furnish surplus copies
  - D. Advertising or promotional materials are sometimes provided by companies
  - E. Floor covering stores and department stores may donate scraps
  - F. Fabric shops may contribute scraps or seconds which cannot be sold
  - G. Transportation facilities--railroad time tables, road maps, bus schedules, air maps
  - H. Printing presses

VI. Parents of school children
  - A. Left-over toys, books, games
  - B. Collections
  - C. Expertise on vacations

VII. Mass media
  - A. Educational TV guides
  - B. Local television and radio shows--will often provide interested teachers guides for what will be broadcast and sometimes provide tapes of relevant broadcasts
  - C. Newspapers--back issues and clipping service often available

Competency Component: 8.2.1 To assist the trainee in identifying available sources of instructional materials (i.e., the I.M.C. network, media facilities, teachers collections).

Behavioral Objective: 8.2.1.2 The trainee will be able to identify at least five resources for instructional materials available.

Activity No.

8.2.1.2.A (continued)

Evaluation Criteria

VIII. Civic organizations
    A. Information on parks, points of interest
    B. Maps
    C. Resource people--mayor, councilman, city employees

IX. Non-profit organizations--i.e. March of Dimes, Cancer Society
    A. Print and non-print (films) of medical problems
    B. Booklets on particular problems--i.e., cancer detection, heart disease
    C. Resource personnel for talks and demonstrations
    D. Activities and information on specific programs--American Red Cross swimming lessons, life-saving book, patches

X. Service organizations--Kiwanis, Rotary

    A. Help to obtain needed materials (supply special equipment)
    B. Give service--such as helping build a model

Competency Component: 8.2.1 To assist the trainee in identifying available sources of instructional materials (i.e., the I.M.C. network, media facilities, teachers' collections).

Behavioral Objective: 8.2.1.3 The trainee will be able to identify at least four resources for instructional materials available form state and national sources.

Enabling Activities	*Resources*	*Comments*
8.2.1.3.A The development of a questionnaire is not a simple task. It involves more than writing a series of questions; development includes design responsibilities and decisions as well as plans for the implementation and evaluation of the instrument. Knowledge and skill in the areas of public relations, administration, measurement, and evaluation are all a part of the developmental task. To help you identify several component parts of the process, this activity is divided into four sections: 1. In addition to the local school system, and the community, there are the broader reachers of the state and nation. Governmental agencies, and professional organizations are also potential resources for actual instructional materials and information on media. 2. Special Education personnel are especially aware of the impact media can have on the learning situation. Special services, on a regional, state, and national basis are available to teachers and consultants.	8.2.1.3.A Pre-test 1. The local IMC for Special Education teachers is a part of a larger network which provides a valuable source of information on instructional materials. Identify three types of centers within the network. (Resource: Exceptional Children, December, 1968.) 2. List at least three services of the SEIMC network which are relevant to instructional materials use by local teachers. (Resource: Exceptional Children, December, 1968.) 3. What national clearinghouse for educational information is a possible source of instructional materials--such as bibliographies, position papers, relevant research? (REsource: Activity 7.1.1.2.A). 4. Describe two functions state universities and colleges can perform which could provide resources for instructional materials. (Resource: Brown, Norberg, and Syrgley, pp. 97-123.)	

8.2.1.3.A (continued)

3. Curriculum consultants should be familiar with and understand the potential contributions which state and national sources can offer to educational programs. You should also be able to relate your knowledge of these sources to others. This knowledge includes knowing what resources are available, knowing how to identify and locate them, and knowing how to use them.

4. A pre-test is provided you in the Resource section of this activity. It is designed to stimulate you thinking, to appraise you awareness of potential sources, and to provide you with the necessary resources to fill in any deficiencies you may find. Take the test. When necessary, read the resource materials listed for each question.

When you feel competent, discuss the activity with your advisor. Be sure to note any additional resources you know. Your discussion will be judged as the "test" for this activity.

8.2.1.3.A (continued)

5. State Boards of Education supply varying degrees of direct and indirect assistance to classroom teachers in the use of instructional materials. List at least six activities of State Boards of Education which would be relevant to instructional materials use by teachers. (Resource: Brown and Norberg, pp. 323-339.)

6. The United States Government is a valuable source of inexpensive, unbiased, authoritative, current, and complete instructional materials. List two publications which provide quick surveys of U.S. Government materials that are potentially useful in class. (Resource: Brown, Lewis, and Harcleroad, pp. 137-140.)

7. Professional organizations (i.e., NEA, Phi Delta Kappa) publish both magazines and pamphlets which contain articles and discussions of instructional matereails. List at least four magazines and/or other publications from professional associations which are potential sources of instructional materials. (Resource: Library)

8. Magazines within the general education field often include a monthly section devoted to audiovisual media (i.e., Jack Tansman's reports in The School Administrator). In the field of Special Education, many publications follow this practice. Where

8.2.1.3.B

. The more resources a teacher and/or curriculum consultant has to draw upon for instructional materials, the better his chances are of finding the appropriate for meeting educational objectives.

The vast array of commercially produced materials already available to you continues to grow at an accelerated pace every year. Yet these materials are rarely put to maximum use

8.2.1.3.A (continued)

would you look in the following magazines for information on Instructional Materials? (Resource: Library)

Teaching Exceptional Children
Exceptional Children
Education and Training of the Mentally Retarded
Mental Retardation

9. Books provide an obvious, but valuable, source of instructional materials. Select at least four books you would consult when seeking help in finding instructional materials. (Resource: Library) (An example would be Minor, Ed. Simplified Techniques for Preparing Visual Instructional Materials. New York: McGraw-Hill Book Company, Inc., 1962. However, many books in many fields are potential sources.)

8.2.1.3.B

Erickson-Reference section, pp, 92, 145-148, 542.

Training Methodology-Part IV: Audiovisual Theory, Aids, and Equipment. An annotated bibliography (Available IMC-UMC).

Eck, P., and Bethancourt, M., A Selected Bibliography of Print and Nonprint Media in the Audiovisual Field.

8.2.1.3.B

Thirty entries would be a minimum for this activity.

8.2.1.3.B (continued)

in instruction because many educators do not know how to locate available materials. They are also frequently unaware of materials which have been produced commercially. Materials are selected from among the limited known wources; often the most appropriate materials are untouched because they are unknown. The loss is twofold-- a cash loss and a learning loss.

As a curriculum consultant you should not only be aware yourself but should also be able to direct others to resources which list all of the commercial instructional aids.

In this activity you are to develop a bibliography, preferably on 3 X 5 cards, of sources for commercially developed instructional matereials. This bibliography should be both extensive and concise. Extensive in terms of identifying the most valuable sources and concise in not being redundant. As a point of departure the resource section provides several lists in current publications.

8.2.1.3.B (continued)

Neagley, Evans, Lynn, Jr. The School Administrator and Learning Resources. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969. P. 46.

Brown, Norberg, and Srygley. Administering Education Media. New York: McGraw-Hill Book Company, 1972. Pp. 175-177.

Murphy, Robert W. How and Where to Look It Up. New York: McGraw-Hill Book Company.

Brown, Lewis, and Harcleroad. AV Instruction: Media and Methods. New York: McGraw-Hill Book Company, 1969. pp. 139, 155-157, 281, 333-335, 386, 434-435.

Kemp, J.E. Planning and Producing Audiovisual Materials. San Francisco: Chandler Publishing Company, 1963. Index.

Competency Component: 8.2.1 To assist the trainee in identifying available sources of instructional materials (i.e., the I.M.C. network, media facilities, teachers collections).

Behavioral Objective: 8.2.1.3 The trainee will be able to identify at least four resources for instructional materials available from state and national sources.

Activity No.	*Evaluation Criteria*
8.2.1.3.A	In this activity the trainee has already been given the questions and the sources for the answers. His answers may be checked against the answer sheet for this activity. At the same time, a brief discussion between trainee and advisor might indicate the trainee's internalization of the material reviewed here as well as the depth of his knowledge. If the trainee appears to have only superficial knowledge, further discussion after additional reading would appear beneficial.

Pre-test Answers

1. The local IMC for Special Education teachers is a part of a larger network which provides a valuable source of information on instructional materials. Identify three types of centers within the network.
    1. Local IMC
    2. Associate IMC's
    3. Regional IMC
    4. National
        a. American Printing House--blind
        b. CEC-ERIC Clearinghouse on Exceptional Children

2. List at least three services of the SEIMC's which are relevant to instructional materials use by local teachers. (Resource: Exceptional Children, Dec., 1968).
    1. Lending
    2. Search and retrieval
    3. Material development and design
    4. Evaluation of instructional materials
    5. Materials Demonstrations and Displays
    6. Publications

3. What national clearinghouse for educational information is a possible source of instructional materials--such as bibliographies, position papers, relevant research?

    ERIC retrieval system

Competency Component:	8.2.1	To assist the trainee in identifying available sources of instructional material (i.e., the IMC network, media facilities, teachers collections).
Behavioral Objective:	8.2.1.3	The trainee will be able to identify at least four resources for instructional materials available from state and national sources.

Activity No.

8.2.1.3.A
(continued)

Evaluation Criteria

2. Andriot, John L. Guide to Popular U.S. Government Publications, Documents Index, 1960.
3. Boyd, A. M., and Rips, R. E. United States Government Publications. H.W. Wilson, New York, 1973.
4. Leidy, W. P. A Popular Guide to Government Publications, 2nd ed., Columbia, New York, 1963.
5. Monthly Catalog of United Government Publications, GPO.
6. Price Lists of Government Publications, GPO.
7. Schmeckebier, L. F., and Eastin, R. B. Government Publications and Their Use, Brookings, Washington, 1961.
8. Selected United States Government Publications. Biweekly publication of the Superintendent of Documents, GPO.
9. White, A. S. Thirty Million Books in Stock: Everyone's Guide to U.S. Government Publications, Aurea Publications, Central Valley, N.Y., 1962.

7. Professional organizations (i.e., NEA, Phi Delta Kappa) publish both magazines and pamphlets which contain articles and discussions of instructional materials. List at least four magazines and/or other publications from professional associations which are potential sources of instructional materials.

   1. NEA - NEA Journal
   2. Phi Delta Kappa - Phi Delta Kappan, Publications pamphlet.
   3. American Association of School Administrators - The School Administrator.
   4. Association for Supervision and Curriculum Development - Educational Leadership.
   5. National Association of Secondary School Principals-Bulletin of the N.A.S.S.P., Spotlight, Student Life.
   6. American Education Research Association - Review of Educational Research AERA Newsletters, "What Research Says" pamphlets.

Competency Component: 8.2.1 To assist the trainee in identifying available sources of instructional materials (i.e., the IMC network, media facilities, teachers collections).

Behavioral Objective: 8.2.1.3 The trainee will be able to identify at least four resources for instructional materials available from state and national sources.

Activity No.

8.2.1.3.A
(continued)

Evaluation Criteria

4. Describe two functions State Universities and colleges can perform which could provide resources for instructional materials.

    1. They conduct research and publish the results (for example, Bethancourt and ECK-- A Selected Bibliography of Print and Non-print Media in the Audiovisual Field from the Bureau of Research and Services, Arizona State University.
    2. They are available for consultations, problems courses.
    3. Media laboratories, self-instruction centers, laboratory schools--all are sources of instructional materials.

5. State Boards of Education supply varying degrees of direct and indirect assistance to classroom teachers in the use of instructional materials. List at least six activities of the State Boards of Education which would be relevant to instructional materials use by teachers.
    1. Fact finding
    2. Experimenting
    3. Setting and enforcing standards
    4. Planning
    5. Selecting
    6. Procuring
    7. Distributing
    8. Producing
    9. Stimulating and informing

    (Resource: Brown and Norberg, pp. 323-329)

6. The United States Government is a valuable source of inexpensive, unbiased, authoritative, current, and complete instructional materials. List two publications which provide quick surveys of U.S. government materials that are potentially useful in class.

    1. Murphey, R. W. How and Where to Look It Up.
    McGraw-Hill.

Competency Component: 8.2.1 To assist the trainee in identifying available sources of instructional materials (i.e., the IMC network, media facilities, teacher collections).

Behavioral Objective: 8.2.1.3. The trainee will be able to identify at least four resources for instructional materials available from state and national sources.

Activity No. — *Evaluation Criteria*

8.2.1.3.A (continued)

7. Association of Educational Communications and Technology (formerly DAVE) - Audiovisual Instruction, Audiovisual Communication Review.

(Resource: Brown, Lewis, Harcelroad, pp. 147-151)

8. Magazines within the general education field often include a monthly section devoted to audiovisual media (i.e., Jack Tanzman's reports in The School Administrator). In the field of special education, many publications follow this practice. Where would you look in the following magazines for information on instructional materials?

Teaching Exceptional Children
Exceptional Children
Education and Training of the Mentally Retarded
Mental Retardation

1. Teaching Exceptional Children - "Network News and Notes"
2. Exceptional Children - "Media Reviews"
3. Education and Training of the Mentally Retarded- "Educational Materials."
4. Mental Retardation - "Book Reviews"

9. Books provide an obvious, but valuable, source of instructional materials. Select at least four books you would consult when seeking help in finding instructional materials.

Answer: Considerable leeway here--books on lessons, special education, and in the A-V field would be appropriate.

8.2.1.3.B

This exercise should provide the trainee a valuable reference source of his own. The more complete, the more valuable it will be. Exactly what should be included is not as important as the variety of sources and number of sources listed. Certainly 25 listings would be a minimum. Samples would be:

Competency Component:	8.2.1	To assist the trainee in identifying available sources of instructional materials (i.e., the IMC network, media facilities, teacher collections).
Behavioral Objective:	8.2.1.3	The trainee will be able to identify at least four resources for instructional materials available from state and national sources.

Activity No.	*Evaluation Criteria*
8.2.1.3.B (continued)	Books in Print, two volumes. R.R. Bowker Company, 1180 Avenue of the Americas, New York. The Booklist and Subscription Books Bulletin. American Library Association, 50 East Huron Street, Chicago, Illinois 60611 (Recommendations for new books, AV materials, free and inexpensive materials) Index to 16mm Films. McGraw-Hill, New York--National Information Center for Educational Media, University of Southern California, Los Angeles. etc.

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objectives:

8.2.2.1 The trainee will be able to describe four methods of collecting data from school personnel on the use of instructional materials.

8.2.2.2 The trainee will be able to develop appropriate techniques (i.e., questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

8.2.2.3 The trainee will be able to utilize the records of the I.M.C. or the lending facilities, to ascertain the use of materials by school personnel.

8.2.2.4 The trainee will be able to design a comprehensive record keeping system for materials used and evaluated by school personnel.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of the available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.1 The trainee will be able to describe four methods of collecting data from school personnel on the use of instructional materials.

Enabling Activities	*Resources*	*Comments*
8.2.2.1.A One of the basic premises upon which this module is based is the belief that the correct use of appropriate media will facilitate and improve the learning/teaching process. As a curriculum consultant for special education, you need to know the best theories on media usage so that you can compare what is being done with what could be done and make recommendations. This is not an easy task. It means that you must know how to collect information from school personnel--data which can be used to form judgements and decisions based upon fact rather than supposition. At many times in your career you have been a part of the data gathering process. You have given or taken part in interviews, observations, surveys, questionnaires, tests, opinionaires and self-appraisal forms. There are many forms and variations of each of these techniques used to collect information from a respondent. Your job as curriculum consultant will often require you to obtain information from school personnel. It is important that you know how to obtain this information, and that you know what methods are available to you, as a	8.2.2.1.A 1. Brown, J.W., and Norberg, K. Administering Educational Media. New York: McGraw-Hill Book Co., 1965. Pp. 171-172. 2. Selltiz, C., Jahoda, M., Deutsch, M., and Cook. S.W. Research Methods in Social Relations (Revised Ed.) New York: Holt, Rinehart and Winston, 1959. Pp. 236-243. 3. Erickson, C. Administering Instructional Media Programs. New York: MacMillan, 1968. Pp. 601, 602, 609-625. 4. Gronlund, N.E. Measurement and Evaluation in Teaching. New York: The MacMillan Company, 1971. Pp. 129-171, 339-340, 343-347. Although this reference deals directly with evaluation in teaching, you should be able to adapt it to use by a curriculum consultant.	

8.2.2.1.A (continued)

curriculum consultant, to gather relevant data.

Brown and Norberg discuss Quantitative data collecting; the other sources listed in the Resource section describe alternate methods for gathering information. Use these sources to complete your assignment. You are to identify and describe a minimum of four different methods which could be used by a curriculum consultant to gather data on the use of instructional materials by school personnel.

8.2.2.1.B

The three situations found in File 8.2.2.1.B(1) require data be obtained from school personnel in order to make meaningful decisions. In each case, determine the most appropriate procedure(s) for gathering necessary evidence and explain your reasons for using that procedure rather than another.

In the previous activity you identified and discussed several methods which could be used to collect data from school personnel. Each of the main methods of gathering information has both advantages and disadvantages; for example, an interivew is time-consuming for both the interviewer and respondent since it is performed on a one-to-one basis, but it

8.2.2.1.B

1. Resource File 8.2.2.1.B(1)
2. Resource File 8.2.2.1.B(2)

8.2.2.1.B (continued)

allows for greater flexibility and in-depth discussion than any other method. Therefore, as a curriculum consultant you need to know not only what methods can be used, but also the capabilities and advantages and disadvantages of each method. This will allow you to select from among known alternatives and to make your decision on the basis of established criteria. The best method for a perticular set of circumstances may be determined by matching of capabilities of limitations of the methods to the needs of the situation.

A list is provided you in Resource File 8.2.2.1.B which contains factors you would consider when selecting the method best suited to a particular situation.

Study this list until you understand why each factor may be important and relevant in meeting the needs of individual situations. Then go to Resource File 8.2.2.1.B(2).

Resource File 8.2.2.1.B(1) contains three situations which you, as a curriculum consultant, might encounter. Each situation reuqires that data be obtianed by the consultant from school personnel. It is assumed in each situation that the data to be collected is relevant and necessary within the context of the curriculum consultant's job. Assume you are the curriculum consultant in each situation and decide what data gathering method you would use and justify, biefly, your selection.

8.2.2.1.B (continued)

A list of considerations, provided in File 8.2.2.1.B (2), as well as the resource for this activity, will help guide your decisions.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.1 The trainee will be able to describe four methods of collecting data from school personnel on the use of instructional materials.

Activity No. *Evaluation Criteria*

8.2.2.1.A

This activity is designed to acquaint the trainee with school data gathering practices early in the behavioral objective. The trainee should list and describe at least four procedures for securing information. A list of possible data gathering techniques follow--the list is not finite and the trainee, at this point, need list and describe only four procedures.

One-to-one interview

Group discussion:
- in-service training
- specific committees
- teachers' meetings

Personal, direct observation

Recorded observations from supervisory personnel

Quantitative records analyzed:
- Records from the media lending facility
- Purchase orders
- Supply requests
- Teachers' lesson and unit plans
- Anecdotal records

Questionnaires--locally written and administered

Self-analysis forms administered—commercial and/or local

Opinion forms administered

Written reports--end-of-year, etc., requested

If the trainee appears limited in his knowledge or acquaintance with data collection, an additional activity which might be useful follows. Have the trainee visit a nearby school district and ascertain what methods were used by them in the previous year for data collection. The trainee is to list the methods used and have his list verified by a local administrator. Then, if necessary, he could read additional sources until he finds three additional means of fact finding to augment those already established.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.1 The trainee will be able to describe four methods of collecting data from school personnel on the use of instructional materials.

Activity No.	*Evaluation Criteria*

8.2.2.1.B

The purpose of this activity is to allow the trainee to evaluate both a situation and data gathering techniques and to see the relationship between them. It is, therefore, not as important that a particular procedure be cited as that the trainee can support and defend his selection.

Sample Answers

Situation #1. This is a rather clear-cut situation dealing with the equipment and materials needs of the Special Education teachers. The first and most obvious procedure is to analyze the records of the lending facility to determine what equipment and materials have been used, if there were requests for media which could not be met by the facility because adequate and appropriate equipment and materials were not available. This could be done rather quickly by the curriculum consultant and a tentative list of needed media could be derived from this procedure. This would meet the considerations of available time, objective analysis, and quantifiable data.

The other procedure which would at first appear very appropriate, a survey of Special Education teachers to determine their needs as they perceive them, would be impossible. With the limitation of a two day deadline, it would be impossible to develop and administer a comprehensive survey to all the teachers. However, some kind of subjective input would be helpful. I would use two additional procedures. I would submit the tentative list of needed media to all Special Education teachers and ask them to check those they feel are appropriate and make any additions they feel necessary. This would produce a comprehensive sample, could be quickly administered and quantified, would provide involvement and therefore some rapport, and would be possible within the time limits.

Finally, I would select at least two representative teachers, perhaps the leaders or the most frequent users of media, and interview them. While this would provide only a small sample, and would be expensive in terms of time, it would allow for candidness, verbal proficiency to obtain more information faster, and allow some depth to be given the peripheral responses of the check list.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.1 The trainee will be able to describe four methods of collecting data from school personnel on the use of instructional materials.

Activity No.	*Evaluation Criteria*
8.2.2.1.B (continued)	These three procedures for gathering data would provide a sound basis, given the time limitation, for making recommendations. Note again that any procedures if rationally justified by the trainee are acceptable. Situation #2.

Data gathering procedure:	
Personal interview	Sample small enough to allow total population to be interviewed Questions could be rather quickly prepared, although time for interviews might be rather long Questions could be flexible enough to allow considerable leeway in exchange of information Teachers should enjoy the verbal exchange as opposed to a written report—more freely given Questions, while flexible, could also provide considerable quantifiable data Interview could produce learning gains and motivation for teachers Rapport could be established between teachers and interviewer In-depth analysis possible

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.1 The trainee will be able to describe four methods of collecting data from school personnel on the use of instructional materials.

Activity No.	*Evaluation Criteria*
8.2.2.1.B (continued)	The subjectivity of the interview, as well as the need for a skilled interviewer are disadvantages, but are far outweighed by the advantages that only the interview, in this instance, offers as a data gathering procedure.

Situation #3

Procedure: Questionnaire

Size: All teachers to be questioned so personal, one-to-one interview eliminated.

Time to prepare: There are no limits upon time in this instance; the preparation time will be primarily that of the consultant, not the total population.

Time to administer: The questionnaire, while it takes much time to prepare, can generally be administered quickly, with no special preparation of administrator.

Expense: Questionnaire could be mailed free through the school system and duplicated relatively inexpensively; it would be more expensive than the interview unless you figure time as money, which many teachers do!

Objectivity vs. subjectivity: The questionnaire, while it may appear objective, is a subjective measure—it is the respondent's views and perceptions; further, it is what he wishes to tell or not tell as honestly as he wishes to tell it.

Verbal vs. written proficiency: It is necessary that the respondent be capable in reading and interpreting written symbols; however, this should not be a problem for the teachers in this situation.

Quantifiable Data: It would be an obvious advantage, considering
Uniformity: the size of the population and the nature of the subject to obtain information which could be easily coded and summarized for all respondents.

Flexibility: Some flexibility could be built into the questionnaire by allowing space for additional comments or allowing

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.1 The trainee will be able to describe four methods of collecting data from school personnel on the use of instructional materials.

Activity No. *Evaluation Criteria*

8.2.2.1.B (continued)

for a wide range of answers.

Number of controllable variables: Questionnaires can be pretested for reliability and validity and be presented to respondents in the same fashion, removing at least some subjectivity of the questioner.

Benefits of anonymity: Respondents may be more candid when responding to a questionnaire if they feel no personal threat because of their answers.

Benefits of rapport: Very few for questionnaire.

Possible learning gains: Some of this may occur as the respondent
Motivation: reads the questions, but it is more likely these gains would occur as side-effects or from outcomes of the questionnaire.

Comprehensive analysis: Of a comprehensive rather than in-depth nature--however, this is the kind of information called for in this situation.

The reasons for using the questionnaire far outweigh those of the interview in this situation.

These are examples of the type of reasoning and possible forms the trainee might use in this activity. Again, it is the ability to use appropriate techniques in different situations that is the criteria for this assignment, not the selection of a particular procedure.

After completing the task the trainee should apply the same kind of judgmental skill to the task of evaluating the data-gathering procedures in the school system he visited and make recommendations based upon what he observed. Each set of recommendations will differ, but should include recognition of the role each of the various procedures play in the total evaluative program.

Competency Component: **8.2.2 To assist the trainee in ascertaining what use is being amde of the available instructional materials: commercial and teacher-made.**

Behavioral Objective: **8.2.2.2 The trainee will be able to develop appropriate techniques (i.e., questionnaires and interivews for obtaining information from school personnel on the use of instructional materials.**

Enabling Activities	***Resources***	***Comments***
8.2.2.2.A Of all the methods you discovered for collecting data from school personnel, one of the most obvious was probably the questionnaire. This is a well-known device which allows the developer to control the population to be questioned, determine the type and amount of information to be obtained, and specify the format of the answers of the respondent. The development of a questionnaire is a job which requires knowledge and skill. In order to help you acquire the knowledge you need, a self instruction unit on Questionnaire Construction is in Resource File 8.2.2.2.A. This unit discusses, through slides, a handout, and a cassette tape, the how and why of questionnaire development. The narrator deals with a sophisticated level of questionnaire construction, including such considerations as cover letter design and follow-up procedures. As a curriculum consultant you will need to know this level as well as the simpler and less sophisticated levels; remember as you view and listen, however, that all the things discussed in the presentation are involved in the	8.2.2.2.A Resource File 8.2.2.2.A	

8.2.2.2.A (continued)

although sometimes more informally than others. When you have finished viewing and listening to the presentation, and feel you have reached the objectives stated in the handout, you are to take the test which is in the Resource File on this Unit. You must pass this test before proceding to Activity 8.2.2.2.B.

8.2.2.2.B

In activity 8.2.2.2.A You discovered that the development of a questionnaire is a complex task. The purpose of this activity is to broaden your understanding of questionnaire construction by introducing you to additional sources of information and expand ypon considerations already introduced in Activity 8.2.2.2.A-- procedure and format decisions; Sections A and D introduce two new considerations--responsibility for construction and evaluation techniques. The four sections included in this activity are:

A. Responsibility for design of the questionnaire.

B. Procedure for design of the questionnaire.

C. Format decisions and alternatives in the design of a questionnaire.

8.2.2.2.B

You may complete as many section as you wich; only one is require

8.2.2.2.B (continued)

D. Evaluation of a questionnaire in terms of its objectibility, reliability, validity, and comprehensiveness.

As a curriculum consultant you should be familiar with all aspects which are involved in the development of a questionnaire. However, your individual interests, abilities, and background will make some sections more relevant than others. Therefore, you are to review all resources and be able to discuss knowledgeably all sections; but you are to complete only the one section you feel would be most beneficial.

Section A: Responsibility for design

As a curriculum consultant you may find that the best way to obtain relevant information is to develop a questionnaire. One of the first procedural decisions you will have to make is who should be responsible for designing the questionnaire. Four major options are:

A. The curriculum consultant constructs the questionnaire.

B. The curriculum consultant and selected delegates from the group construct the questionnaire.

C. Delegates from the group construct the questionnaire.

Section A

1. "If you want somebody to support a program, be sure that he understands its values and has shared with personal satisfaction in the planning and development of that program." (School and Community, 2nd ed. Englewood Cliffs, New Jersey: Prentice-Hall, 1954.)

"In accepting a position in educational administration an individual is assuming a leadership responsibility which carries with it a certain amount of authority . . .when he accepts authority he is obligated to exert leadership and to accept responsibility for the outcomes of the enterprise." (Neagley, R.L.,

8.2.2.2.B (continued)
Section A (continued)

D. Group constructs questionnaire.

The quotations in the Resource section suggest reasons for accepting or rejecting some of the options. Read these and return to this column.

Now assume that you have finished your studies and are employed for the first time in a newly created position as curriculum consultant for Special Education. It is the end of the first semester and you, as a new curriculum consultant, have observed little use of instructional media in special classrooms. This observation has been validated by the lending records of the IMC. Several teachers have expressed their inability to work with machines as their major reason for not using media.

Your task is now that of designing a questionnaire to ascertain Special Education teachers' perceived needs for instruction in the use of instructional media. Decide which option you would choose and defend your selection in writing. Then describe at least one other situation where you would select another option as more appropriate.

8.2.2.2.B (continued)
Section A (continued)

Evans, N.D.,and Lynn, Jr., C.A. The School Administrator and Learning Resources. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969.)

"The leadership responsibility which falls on the curriculum supervisor involves a variety of dutirs . . . Developing criteria for the evaluation of curriculum proposals . . . Developing evaluative criteria and instruments . . ." (Role of Supervisor and Curriculum Director in a Climate of Change. Prepared by ASCD 1965 Yearbook Committee; Ed. by Robert R. Leeper. Washington D.C.; Association Development, 1965.)

" . . . the main reason for appraisal is to discover pathways to the improvement of media services in general. A secondary reason, but also an important one, is the use of an evaluation process as an experience for personal growth of those individuals who do the painstaking work of measuring and evaluating, the media director included. The director should realize, therefore, that unless he involves others in the process, he may be unable to realize the full potential value of his efforts." (Erickson, C.W. Administering Instructional Media Programs. New York: MacMillan Co., 1968. Pp. 599-600.)

8.2.2.2.B (continued)

Section B: Procedure for design of the questionnaire

Resource File 8.2.2.2.B(1) contains several steps, each on separate cards, found in developing a questionnaire. When assembled in a logical order these steps present a procedure which you, as a curriculum consultant, could follow in the development of a qestionnaire to obtain needed information from school personnel. Unscramble the steps, make any addition, corrections, or deletions you choose, and present your final procedure in outline form to your advisor

Section C: Format decisions

A questionnaire is designed to elecit information about something, e.g., how often teachers use media in special classrooms, how well a resource center meets the needs of the teacher when preparing locally produced materials.

It is necessary to decide exactly what information is needed before questions can be designed to gather the data. Working from purpose, the following decisions must be made:

A, What kind of questions should be be used:
   1. Factual - to determine what is known
   2. Opinion - to determine how the respondent feels at the time

8.2.2.2.B (continued)

Section B

- Resource File 8.2.2.2.B(1)

Section C

1. Selltiz, C., Jahoda, M., Deutsch, M., and Cook, S.W. Research Methods in Social Relations (Revised Ed.). New York: Holt, Rinehart and Winston, 1959. Pp. 243-268, 344-384.
2. Gronlund, N.E. Measurement and Evaluation in Teaching (2nd Ed.). New York: MacMillan Co., 1971. Pp. 150-193, 218-219.
3. Sawin, E.I. Evaluation and the Work of the Teacher. Belmont, California: Wadsworth Publishing Co., 1969. Pp. 116-128.
4. Schoer, L.A. Test Construction: A Programmed Guide. Boston: Allyn-Bacon, 1970.

Section C

To see how the examples fit together in a completed instrument, four questionnaires are included for you in the Resource section of this activity.

8.2.2.2.B (continued)
Section C (continued)

3. Attitude - to determine the basic personality sets that would influence the respondent's perception.

4. Self-perception - to determine how the respondent sees himself in relation to others.

B. What form should the question take:

1. Supply
    a. Short answer
    b. Completion
2. Selection
    a. True-false
    b. Paired-comparison alternative response
    c. Matching
    d. Multiple choice
    e. Rating scale
    f. Rankings
3. Open-end
    a. Extended response
    b. Restricted response

The Resource Section lists several selections which discuss and give examples of the kinds and forms of questions which can be used in a questionnaire. Read until you understand the kinds and forms of questions and can identify each. Then demonstrate your understanding by finding or writing your own examples of each kind of question and each form.

8.2.2.2.B (continued)
Section C (continued)

Resource File 8.2.2.2.B(2) contains:

5. Fulton, W.R., and King, K.L. Evaluative Checklist: An Instrument for Self-Evaluating an Educational Media Program in School Systems (Revised). Washington, D.C.: AECT, 1970.

6. Fulton, W.R. Evaluative Checklist: An Instrument for Self-Evaluation an Educational Media Program in Colleges and Universities (Revised). Washington, D.C.: AECT, 1970.

7. Evaluation of Instructional Material for the Educable Mentally Retarded. MSU. Orginal and revision.

8. Questionnaire to Ascertain Educational Needs and Services (from A Study to Determine the Need for an Area Research and Service Center. Educational Service Center.

Behavioral Objective *Continued:*

8.2.2.2.B (continued)

Section D

The following definitions (as they would relate to the design of a questionnaire) are given you:

objective - Questions are free from bias or distortion.

reliable - Questions will consistently produce the same results.

valid - Questions produce results which serve the particular uses for which they are intended.

comprehensive - Questions are representative of the entire range of the subject to be measured.

Develop, using the definitions given as a beginning, your own definitions of these for terms. The selections in the resource section present slightly different interpretations. You may use these and/or any other resources to create a meaningful explanation for you. Remember that the best definition for you may be one that you have read or one that you have adapted, or one that you have created.

8.2.2.2.C

The design of a well developed questionnaire is a rewarding accomplishment. In your work as a curriculum consultant you will often need to

8.2.2.2.B (continued)

Section D

1. Lindwall, C.M. Testing and Evaluation: An Introduction. New York: Harcourt, Brace & World, Inc., 1962. Pp. 33-46.
2. Popham, W.J. (ed.). Criterion-Referenced Measurement (An Introduction). Englewood Cliffs, New Jersey: Educational Technology, 1971. Pp. 17-29.
3. Taba, H. Curriculum Development: Theory and Practice. New York: Harcourt, Brace, & World, Inc., 1962. Pp. 316-323.
4. Library

8.2.2.2.C

The approximate weights of the various parts of this activity are:

50% - questionnaire

Behavioral Objective Continued:

8.2.2.2.C (continued)

develop either a questionnaire or a similar instrument. Obviously some questionnaires will be relatively casual and simple while others will be more sophisticated and complex. You should be able to utilize the whole spectrum--from simple to complex--if you understand that the basic ingredients of design responsibility, precedural order, format decisions, and evaluation measures remain the same.

This activity is designed to allow you to demonstrate your knowledge of the component parts of a questionnaire (responsibility, procedure, format and evaluation) and your ability to apply what you know to a practical situation. Both your understanding and your ability to translate theory into practice are important.

The curriculum committee for the Salt Lake School District is studying the language arts program. As curriculum consultant in Special Education you have been asked to identify the commercially produced materials used by Special Education teachers in their Language Arts Programs, present an evaluation of the three most commonly used materials, and make recommendations for future requisitions.

You already know that the three commercially produced materials used most frequently in the classrooms are:

1. The Peabody Language Development Kit

8.2.2.C (continued)

50% - report to be divided as follows:

- 15% - explanation of procedure
- 15% - explanation of questions (types of forms)
- 15% - explanation of tests for reliability, validity, objectivity, comprehensiveness
- 5% - tabulation and presentation

Behavioral Objective Continued:

8.2.2.2.C (continued)

2. Write and See (Lyons and Carnahan Handwriting Series)

3. Distar Reading Kits 1 and 2.

The things you need to know in order to make your report and recommendations are: how effective the Special Education teachers feel these materials are in meeting instructional needs of their students, what other commercially produced materials are being used regularly in the classrooms, what commercial materials the Special Education teachers feel should be used in the Language Arts Program, either instead of or in addition to those now available.

In order to obtain this information you have decided to produce a questionnaire.

Your task in this activity is to produce a sample of the total questionnaire you would develop as curriculum consultant. Include sufficient questions to illustrate and indicate how the final questionnaire would look and read.

In a accompanying report indicate your choice of responsibility for design, the procedure you would follow, the rationale for the forms and kinds of questions used, and the provision for evaluation.

Behavioral Objective Continued:

8.2.2.2.D

The "interview" situation has been used ever since man began to communicate. Certainly talking, with the inherent value of direct of personal contact and the opportunity for immediate feedback, is one of the most obvious means a curriculum consultant can use in obtaining information from school personnel.

The term " interview" has been applied to a variety of situations (i.e., the radio talk show, the job interview, the open questioning of an expert by an audience, etc.), and under a variety of conditions (i.e., one-to-one, one-to-many, formal and informal, structured and unstructured, etc.). All hold elements of the interview situation as we shall define it here. More important, the knowldege and skills you will study can be applied to a variety of situations. So as you complete the activities in the more limited definition remember that the principles and techniques can be applied in all.

An interview, for the purpose of this behavioral objective, shall be defined as a meeting, usually of two people, for the purpose of gathering information on something special. This means a more formal situation than a chance encounter, and a more structured questioning with definite objectives in mind than in a general discussion.

8,2.2.2.D

Resource File 8.2.2.2.D(1)

8.2.2.2.D (continued)

Section 1 : Advantages and Disadvantages of the Interview

The personal interview is a valid means of obtaining information from school personnel on their use of instructional materials. The major advantages and disadvantages to consider when deciding whether to use this procedure for collecting data are listed in File 8.2.2.2.D(2). The books and authorities listed in the Resource section can provide you with a fuller explanation if you are interested. Use these and any other sources you need to complete the following task:

Describe at least two situations when the advantages of the personal interview would warrant using this method rather than any other data gathering procedure.

Section 2: Questioning Techniques in Interviewing

. The interview is designed by the developer to elicit information from the respondent; the standardized interview is structured so that the questions asked meet the objectives of the interviewer and provide the precise information he needs. It is important, therefore, that the questions to be asked are, as in the questionnaire, accurate, comprehensive, reliable, valid, and can be coded for evaluation.

8.2.2.2.D

Resource File 8.2.2.2.D(2)

8.2.2.2.D

Section 1

See instructor for recommendations on faculty and personnel available as resources.

Section 2

You may select, with your SECTraC advisor's approval, another objective if you choose.

Behavioral Objective Continued:

8.2.2.2.D. (continued)

As with the questionnaire, the personal interview can range from a simple to a highly structured affair, with many levels of complexity. The purpose of this activity is not to make you a professional interviewer; it is to help you identify the strengths and weaknesses of the method, illustrate techniques which can be used in interviewing, and construct criteria with which to evaluate an interview.

In your job as curriculum consultant you will often have to gather information. You need to be able to construct and conduct a successful interview. You will also find many opportunities to share your knowledge and ability with others.

The Resource File labeled 8.2.2.2.D(1) contains a self instruction unit on Data Collection by Interview. Review this unit and complete the handout and the test that accompanies it. Present these to your advisor before proceeding to the next activity.

Resource File 8.2.2.2.D(2) contains some interesting supplemental readings, activities, resources, and questions which you might wish to review if you are particularly interested in this subject.

8.2.2.2.D (continued)
Section 2 (continued)

Brandt has listed ten types of questions commonly used in interviews. Use this list and develop one question of each type given the objective of assessing why teachers do (or don't) use commercially available transparencies in class.

Section 3: Techniques for Interviewing

One variable present in the personal interview that is not present in the questionnaire is the interviewer himself. This can be a positive or negative value depending upon the skill of the interivewer.

The first two sources [in Resource File 8.2.2.2.D(2)] listed for this activity provide training materials for interviewers in survey research. You are to adapt these to the following situation.

Assume you are the curriculum consultant in a large school district. You have ascertained the need for personal interviews in each of the school and must train five people to administer the prepared questions. Develop a handout you would give them listing the procedures, responsibilities, and techniques of conducting interviews.

Behavioral Objective *Continued:*

8.2.2.2.E

Learning how to conduct an interview is like any other performance task; theory must be learned, but it is the ability to apply the theory in a practical situation that is measured. As a curriculum consultant your contacts with people will be wide and varied. You should not only know how to conduct and evaluate an interview, but also be able to perform both tasks proficiently yourself. There is no instant expertise; skill in interviewing comes with knowledge, practice, self-evaluation, correction and more practice. It is the teach, test, re-teach, or learn, test, relearn, theory in action. This activity provides you with one opportunity to begin the cycle. Your self-growth will be a continuing process.

The first part of your assignment is to select an objective, develop questions and probes, and use them as you conduct and record an interview with three different teachers. Establish a time limit of fifteen minutes for each interview. When you have finished the interviews, tabulate, analyze and report your findings.

For the second half of your assignment, write a report in which you review your tapes citically and evaluate how well the advantages of the interview were utilized, and how well you met the responsibilities and used the procedures and techniques of conducting interviews.

8.2.2.2.E

1. Tape recorder
2. SECTraC staff

8.2.2.2.E (continued)

If you feel you could improve your performance, repeat the activity, improving in these areas you found weak.

Present your recorded interviews and personal evaluations to the staff for discussion.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (e.g., questionnaires, interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.	*Evaluation Criteria*
8.2.2.2.A	The self-instruction unit from Northwestern University, located in Resource File 8.2.2.2.A, contains a mastery test which the trainee is to complete for evaluation by his advisor. The key to this test follows. The test should be used as both an evaluative and a diagnostic tool. The trainee's answer should show his comprehension and also indicate those areas in which further work would be beneficial. In many cases, the weaknesses can be corrected by encouraging the trainee to work one of the sections of 8.2.2.2.B which deals with his problem area. Section A - Design Section B - Procedure Section C - Format Section D - Evaluation If none of these meet the trainee's needs, he may be directed to additional resources as presented in 8.2.2.2.B which supply him necessary information and special activities will have to be devised.
8.2.2.2.B	This activity is divided into four sections: Section A: Design Section B: Procedure Section C: Format Section D: Evaluation. The trainee is instructed to read all of the resources and activities in all sections and familiarize himself with all these aspects. However, he is expected to complete only one section for formal evaluation. If the previous activity did not dictate his selection the trainee may choose any section to complete.
Section A:	The evaluation criteria for each section follow. 1. The trainee must select one of the four options-- A. The curriculum consultant constructs the questionnaire. B. The curriculum consultant and selected delegates from the group construct the questionnaire.

MASTERY TEST: UNIT IV

1. What two questions should you ask yourself before you decide to use a questionnaire to gather data?

   1. Is information available elsewhere?

   2. Is there a more appropriate technique?

2. Name one major advantage of questionnaires over interviews.

   (wide coverage; lower expense; more candid; uniformity)

   Name one major disadvantage of questionnaires.

   (no two-way communication; non-return biased; items misinterpreted)

3. Read the statement below. Then decide whether each of the others is a statistical (S) or a non-statistical (NS) inference:

   > 90% of the young adults (age 18-21) in a random sample from a farm town said they will become farmers.

   S a. We can infer, then, that most young adults in this town will become farmers.

   NS b. We can infer, then, that young adults from the farm town 10 miles away will become farmers.

   NS c. We can infer, then that most people aged 18 or over in the town are or will become farmers.

4. Why is it important to carefully define the population from which you sampled? Allows you and readers to distinguish between statistical and non-statistical inferences in report of results.

5. What should you do next after the questionnaires are returned?

_____a. Ask an expert for advice in checking your results.

_____b. Hand total, tabulate, and keypunch at least one batch, even before all of them are returned.

_____c. Rough out tables and graphs you will use in the report.

__X__ d. Put into action your plan to deal with the non-returns.

6. Put in order these steps in pilot study work on a questionnaire -- 1 for first, 2 for second, etc.

__2__ Try out questionnaire on a small group of disinterested persons.

__3__ Try out questionnaire on a small group of target population.

__1__ Seek advice from an expert on questionnaire construction.

7. Below are some possible format suggestions for questionnaires. Put an "X" by each of those which was strongly suggested in the presentation.

_____a. Try to get the questionnaire on a single page even if this requires some crowding.

__X__ b. Leave a place for respondent's name in case he wants to identify himself.

__X__ c. Include the name of the sponsoring person or agency.

__X__ d. If questionnaire is brief, inform the respondent of the amount of time required.

_____e. Use a simple heading like "QUESTIONNAIRE" at the top of the page.

_____f. Use explicit directions and examples for every type of question in the questionnaire.

__X__ g. In the cover letter, sell the study first and give your expectations later.

8. Identify each statement as most appropriate for Dichotomous questions (D), Check-list questions (C), or Open-ended questions (O).

C a. Used where topic naturally breaks into categories.

C b. Be sure to leave both ends open in your responses.

O c. Generally, the least desirable for mail questionnaires.

D d. Only two possible answers.

C e. Written so people not forced into an extreme position.

D f. Helpful in this type to leave an "escape clause."

O g. Good to use when introducing a topic.

9. What is the particular danger associated with dichotomous questions?

X a. Respondent may want neither choice.

___ b. Time-consuming.

___ c. Questions may not be exhaustive or mutually exclusive.

___ d. Respondent may not be able to answer due to lack of knowledge.

10. What is the particular danger associated with check-list questions?

___ a. Respondent may not be able to answer due to lack of knowledge.

X b. Question may not allow exhaustive or mutually exclusive categories.

___ c. Time-consuming.

___ d. Respondent may want none of the choices.

11. What is the particular danger associated with open-ended questions?

X a. Difficult to code and categorize.

___ b. Question may not be exhaustive or mutually exclusive.

___ c. Respondent may not be able to answer due to lack of knowledge.

___ d. Respondent may not want to take one of the extreme positions.

12. What is the particular usefulness of dichotomous questions?

___a. Allow more than one response.

_X_b. Similar to many everyday-type decisions.

___c. Allows gradations of responses.

___d. Allows respondent to let off steam.

13. When are check-list questions particularly useful?

___a. In open-ended situations.

___b. When you want to allow respondent to let off steam.

_X_c. When answer has gradations.

___d. When you have a dichotomous situation.

14. What is one particularly good use of open-ended questions?

___a. To match everyday-type decisions.

___b. When ease of scoring and tabulating is important.

___c. To get answers to questions with distinct categories.

_X_d. When you want to allow respondent to let off steam.

15. Identify the following examples as dichotomous (D), check-list (C), or open-ended (O) questions.

_O_a. What were your major complaints with this course?

_C_b. Schools should be kept open 12 months a year.
___strongly agree
___agree
___?
___disagree
___strongly disagree

? _D_c. Who is the newest teacher in your building?

_D_d. Do you approve of the new dress code?
___yes
___no
___prefer not to answer

_C_e. Do you drive a car to work?
___always
___usually
___occasionally
___infrequently
___never

16. What is primarily wrong with each of these items? Mark each one "not exhaustive" (E), "not mutually exclusive" (ME), "ambiguous" (A), or "emotionally laden" (EL).

E a. How many paperback books do you own?

____ 25-50
____ 51-75
____ 76-100
____ 101-150
____ 151-200

A b. What proportion of people feel that animals are a burden to own?

____ almost all
____ quite a large proportion
____ a moderate proportion
____ a smaller proportion
____ very few

E c. What is your favorite color?

____ red
____ yellow
____ blue
____ green
____ orange

ELd. What is the annual income (total) in your family?

____ under $2,000
____ $2,000 - $3,999
____ $4,000 - $7,999
____ $8,000 - $11,999
____ $12,000 - and over

ME e. What musical instrument do you play?

____ trumpet
____ trombone
____ flute
____ drums
____ violin
____ piano
____ other (please specify) ____________________
____ none

17. What type of scaling format is referred to in each of the following statements?

Thurstone (T), Likert (L), Guttman (G), Osgood (O)

L a. Uses a group of subjects to try out items.

T b. Uses a group of judges.

L c. Items are selected if they differentiate between distinct groups.

O d. Become most meaningful in before and after comparisons.

G e. Responses or questions organized in strict hierarchy.

MASTERY TEST: UNIT VII

1. Which traits would you usually associate with an ordinary conversation (C), a research interview (I), or both (B)?

B a. non-verbal communication

C b. no general plan

I c. definite questions

I d. reactions and responses can be easily compared

C e. control should shift

B f. useful for giving information

B g. may be carried out with more than two people at one time

2. What characteristic distinguishes a research interview from an individual interview?

X a. The same questions are asked to many people in a research interview.

____ b. The research interviewer plans to have his questions fit the experiences of each individual respondent.

____ c. Use of written schedules, oral probes, and precise recording of responses is characteristic of the individual interview.

____ d. The research interviewer tries to develop a good, warm, personal relationship with respondent.

3. How is a research interview related to a survey?

____ a. follow-up technique for survey.

____ b. pilot study for survey.

____ c. alternative technique for survey

X d. tool for survey

4. What is the usual purpose of a research interview?

____ a. to change the respondent's behavior.

X b. to gather data.

____ c. to test the effectiveness of certain questions.

____ d. to communicate information.

5. What are the advantages of a research interview over a mail questionnaire? (you may choose more than one.)

____ a. less expensive

X b. allows two-way communication

____ c. can be quickly prepared and executed

X d. can explore depth issues

____ e. more suitable for situations where questions are dichotomous.

____ f. more easily adapted to computer tabulation.

6. What are the communication levels of these questions?

(Information -- I; Action -- A; Philosophy -- P; Advice -- AD)

P a. How do you feel about the proposed four-day work week?

I b. When was the first time you heard about a 4-day work week.

P c. What do you prefer: to work four 10-hour days or five 8-hour days?

AD d. What would you recommend to your company about this idea of a four day week?

AorI e. How much overtime do you work each week now?

A f. Would you work more over-time if your company went to a four day week?

I g. How many people do you know who are now working a four day week?

7. What is the communication level of these answers? (I, A, P, Ad)

   AD a. I think we should begin that plan immediately.

   I b. Our family didn't have much money when I was growing up.

   I c. I've only been fired once from my job.

   P d. I think many changes will occur in the next year.

   A e. I used to do exercises every night and ride my bicycle, but no more.

   AD f. They ought to go ahead with it, if they've got any sense.

   P g. I guess books are okay, if you like them, but there's nothing that beats TV.

8. Which answer is on the same level as this question? "What happened in your school when the teachers went on strike in February?"

   ____ a. I'm glad the teachers didn't get paid -- they should have been fined as well.

   ____ b. It was just a terrible thing -- all the union is interested in is more money.

   ____ c. Well, it was really fun -- I was out in the picket line all three days.

   X d. Many of the classes were combined because there weren't enough teachers.

9. Write an answer (more than a yes or no answer) for each question using the same level of communication?

   a. What do you think of the President's current economic policy? (something expressing an opinion)

   b. What experiences have you had with the Better Business Bureau? should state a fact about an experience he's had.

   c. What do you think a teacher should do on the first day of class? should express a suggestion or give advice.

10. What is implied by the "control" issue mentioned in the unit?

____ a. The interviewer should always direct or regulate the responses to his questions.

____ b. The respondent should be encouraged to give direction to a non-directive question.

_X_ c. The interviewer should prevent the respondent from asking questions or wandering to unrelated topics.

____ d. The interviewer should cultivate an attitude of authority to reassure the respondent that he is qualified.

11. What is implied by the "affection" issue mentioned in this unit?

____ a. It is important that the interviewer and respondent like each other.

____ b. The respondent will be more honest in his answers if he likes the interviewer.

_X_ c. Too much positive or negative feeling between interviewer and respondent can have a negative effect on the interview.

____ d. Both a and b.

12. Discuss two means of establishing neutrality in an interview.

1. dress; stick to the questions; avoid

2. being over friendly or curt

13. Write an acceptable strategy for this objective. (you will probably need more than one question)

Need to know respondent's knowledge and opinion of open classrooms for senior high school students.

(should have a question to determine if respondent knows what an open classroom is; a question about whether he thinks they are good for senior high school students.)

14. Which of these is the best opening statement?

____a. I am Mary Chin from General Tools, Inc. We're interviewing people to find out general reactions to a new idea from our production department. May I ask you a few questions?

____b. Hi! I'd like to ask you a few questions. We're doing some research on the political opinions of people in Illinois -- statistical, you know -- no names mentioned.

____c. Hello, ma'am. Your name was chosen at random from the phone book and my company, Dally Books, Inc. would like some answers from you about your reading habits.

__X__d. Mrs. Rodgers? I'm Gloria Dick from Northern Home Development Service. We're investigating consumer wants and needs to guide our research department. Your name was selected at random. You can be of great help with the five minutes it will take to answer some question.

15. Each of these questions needs modification. Make the most appropriate correction.

a. Do you know what a futurist is?

The person can simply answer no if he's unsure and this closes the issue. Better ideas: What would you say a futurist is? or Have you ever heard of the word "futurist"? followed by What is it?

b. Would you buy one just on the salesman's recommendation, without checking with other people?

Slanted question -- respondent can hardly say anything but no. Better ideas: Would you buy one on the salesman's recommendation? or a more non-directive question such as How would you decide to buy one?

16. Name one decision you must make about population?

Who? one population or several? one interview or several? Group or individual interviews?

17. What are the benefits of a pilot study?

X a. suggests the best question order.

___ b. gives some idea of the kind of respondent you will be dealing with.

___ c. might be so satisfactory it will replace the research interview.

X d. identifies misleading or confusing questions.

X e. reveals weak opening statements.

X f. gives practice estimating level of communication of responses.

18. Name one decision you must make about the sample?

How to choose them; how many you need

19. What is the main purpose of using written questions in an interview?

___ a. To clearly show where the emphasis of the interview lies.

___ b. To convince the respondent that he is not a "special case."

___ c. To give the interviewer something to fall back on if he forgets.

X d. To assure standardization so responses can be compared.

20. Which of these are directive (D) or non-directive (N)?

N a. What experiences of high school do you recall easily?

N b. How do you feel about public aid to parochial schools?

D c. What is your favorite TV program?

N d. What can you foresee about the future of education in this country?

D e. Should school attendance be mandatory until age 18 (instead of 16)?

21. Write three possible probes for each of these questions.

a. Do you have a job now?

1. If yes: Where? When did you start? Do you plan
2. to stay long? etc. If no: When did you work
3. last; Who was your last employer? etc.

b. How is your house heated?

1. Have you ever tried anything else? Are you
2. satisfied? What is your monthly heating
3. bill?

this – not in text

22. What method of coding should you use?

Code by information levels

23. Suggest one way to combat non-availability.

Come at a different time; find out when respondent is likely to be home

24. Suggest one way to combat refusals.

Send someone else; don't give respondent chance to give an emphatic "no" response

25. Name two situations where disparity of interviewer-respondent characteristics could lead to error:

disparate ages; SES; sex; educational levels; religion; race; etc.

26. Which of these are potential technical errors? (There may be more than one correct answer.)

__X__ a. respondent answers a philosophy question by asking an additional probe.

____ b. interviewer deviates from a question by asking an additional probe.

__X__ c. respondent mumbles an answer, and interviewer records what he thinks he hears.

__X__ d. tape recorder is never turned on.

__X__ e. respondent does not answer a question.

____ f. respondent puts a question into his own words to better explain it.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (e.g., questionnaires, interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No. — *Evaluation Criteria*

8.2.2.2.B (continued)
Section A: (continued)

C. Delegates from the group construct the questionnaire.
D. The total group itself constructs the questionnaire.

2. The trainee must offer adequate support for the option he chose, using the quotations given him and relevant materials from his own additional readings. There should be a clear indication that the related reading called for was done and understood well enough to be applied to an actual situation.

3. The trainee should indicate his awareness of the particular situation described, very briefly, in the activity (new curriculum consultant, direct observations made, infrequent use of existing media, teacher's explanation of use pattern) and how this particular situation would affect the option choice. From the information given the trainee may draw any inferences he chooses (i.e. that the teachers, questioned by the curriculum consultant as to why they are not using media, became hostile and defensive, or that the teachers, aware of the need for using media, came to the curriculum consultant and asked for inservice training in this area). The important criteria is that the trainee uses his analysis of the situation to help determine his choice of planning option.

4. The trainee must be able to extend his knowledge to create a new situation which calls for a new answer.

Section B:

Twenty-two items are listed in the resource file for this activity under "Procedure for Designing a Questionnaire." Three of the items should be omitted:

1. Hire a pretty full time secretary to take care of details and tabulations.
2. Decide upon the color for your office.
3. Plan how you will do any further questionnaires, surveys, etc., without the help of an electric typewriter.

The other nineteen are legitimate considerations. The easiest way to manage them is to group them into early, middle and late considerations as shown on the attached sheet. Within

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

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Activity No.	*Evaluation Criteria*
8.2.2.2.B (continued) Section B: (continued)	each grouping the trainee may have considerable latitude; although constructing the format and drafting the questions must obviously precede appraising the question, gaining administrative approval might precede or follow determining use of time and personnel. The approximate order is shown, but each individual order may vary and must be judged accordingly.

Identify need.

Define your objectives-decide exactly what is to be measured.
Gain administrative approval of your plan.
Determine a realistic use of time and personnel to help guide you.
Determine responsibility for the design of the questionnaire.
Plan what personnel will be used, and how, throughout the project.
Train personnel in the design, if necessary, early in the procedure.
Plan what materials will be needed throughout the planning and administering of the questionnaire.
Prepare a budget for the materials needed to produce and administer the questionnaire.

Decide upon the sample (population) to be questioned.
Construct the format of the questionnaire.
Draft the questions for use in the questionnaire-determine type(s) to be used.
Appraise the questions to determine if the type of answers best meet the objectives.
Appraise the questions to see if the data obtained from the answers will be quantifiable.
Pre-test the questions for reliability, comprehensiveness, and validity.
Re-vamp the questionnaire, if necessary.

Train the necessary personnel for the administration of the questionnaire, if necessary.
Allow time for the administration of the questionnaire.
Allow time for the evaluation of results.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (e.g., questionnaires, interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No. — *Evaluation Criteria*

8.2.2.2.B (continued)

Section C:

Within this activity the trainee is given the forms he is to use and the resource materials to help him if he needs a discussion of examples of each. His task is to select a purpose and write examples of the kinds and forms of questions he might expect to use.

The following are examples of the types of questions the trainees may submit:

A. Kinds of questions:
  1. Fact-known
    1 2 3 There is no director of the media program.
    4 5 6 There is a part-time director of the media program.
    7 8 9 There ia a full time director of the media program.

The overhead projector can be used in the following situations:

T F A well lit classroom
T F When showing a picture in a magazine
T F When visuals need to be seen by the whole class
T F When the teacher needs to write on a graph

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (e.g., questionnaires, interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.

8.2.2.2.B
(continued)

Section C:
(continued)

Evaluation Criteria

2. Opinion

	nearly non-existent but needed	nearly non-existent not needed	excellent	good	fair	poor
1. Provisions in the curriculum for educating the gifted are						
2. Provision in the curriculum for educating the average pupil are						
3. Provisions in the curriculum for educating the slow learner are						

The main reason teachers do not produce more instructional material is:

___ Lack of administrative support and encouragement
___ Poor production facilities
___ No spare time allowed for planning and/or producing
___ No training or ability in this area
___ (Your option)

Competency Component: 8.2.2 To assist the trainee in ascertaining what us is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (e.g., questionnaires, interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.

8.2.2.2.B (continued)
Section C: (continued)

Evaluation Criteria

3. Self-perception

Teachers who use media are:
___More creative than most
___Less creative than most
___Creativity not a factor

B. Question forms:

1a. Supply-short answer

What single piece of equipment do you find most helpful in teaching the mentally retarded?

____

In which curricular area(s) do you use instructional materials specifically designed for handicapped children?

____

1b. Supply-completion

Teachers need more in-service training programs on ________________________________.

The average student watches ___ hours of television a day.

2. Selection

2a. True-False

The overhead projector can be used in a normally lit classroom. T F

2b. Paired-comparison

The overhead projector can be used in the following situation:

Competency Component:	8.2.2	To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.
Behavioral Objective:	8.2.2.2	The trainee will be able to develop appropriate techniques (e.g., questionnaires, interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.

8.2.2.2.B
(continued)
Section C:
(continued)

Evaluation Criteria

T F-In a well lit room
T F-With either commercially produced or locally produced transparencies
T F-When the whole class needs to view the visual
T F-To show a picture in a magazine to the class

2c. Matching

Column A	Column B
_____ 1. Name of the answer in addition problems	A. Difference
	B. Dividend
_____ 2. Name of the answer in subtraction problems	C. Multiplicand
_____ 3. Name of the answer in multiplication problems	D. Product
	E. Quotient
	F. Subtrahend
	G. Sum

2d. Multiple choice

Please identify curricular areas in which instructional materials need "updating." (check more than one if appropriate.)
a. Science
b. Math
c. Language Arts
etc.

2e. Rating Scales

Available basic texts for your classroom use are:
( ) Excellent ( ) Good ( ) Fair ( )Poor

or

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Activity No.

8.2.2.2.B
(continued)
Section C:
(continued)

Evaluation Criteria

In your professional judgment, how adequate are the instructional materials specifically designed for your special field?

Supply and Variety	Quality
a. Very adequate	a. Very good
b. Quite adequate	b. Good
c. Somewhat adequate	C. Fair
d. Somewhat inadequate	D. Poor
e. Very inadequate	E. Very poor

2f. Rankings

Please rank the following from most to least important when preparing visual materials:

Free time
Trained personnel to assist in preparation
Availability of materials
Administrative pressure to produce visuals

3. Open-End

3a. Extended response
[Purpose: to allow respondent freedom to select, organize, integrate and evaluate with as few prejudicial clues, or restrictions as possible.]

Discuss how the learning resource director could be of the most assistance to you.

3b. Restricted response
[Purpose: to allow discussion but limit the content and/or form of response.]

List and discuss briefly three in-service training programs you would find helpful.

Competency Component:	8.2.2	To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.
Behavioral Objective:	8.2.2.2	The trainee will be able to develop appropriate techniques (i.e. questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.

8.2.2.2.B
(continued)
Section D:

Evaluation Criteria

In this activity the trainee is given both the definitions for the terms objective, reliable, valid, and comprehensive, and the resources to review for new insights and interpretations. He is to proceed from these to his own definition. Every trainee's definition will probably vary somewhat but should indicate an understanding of the basic definition and some additional perception on his part. If there is any question about the trainee's comprehension, a conference, or small group discussion might be helpful here.

The second part of this activity calls for the trainee to apply his understanding of the terms by constructing tests for reliability, validity, comprehensiveness, and objectivity using six questions he developed for Activity 8.2.2.2.C, or by selecting one of the instruments in Resource File 8.2.2.2.C. The most common tests which could be used follow. If the trainee selects another which is appropriate, that is perfectly acceptable and his test should be added to this list.

To test for content validity:

1. List the topics (subjects, i.e., institutional educational media services, educational media services, curriculum and instruction) to be covered in one column and the kind of information to be gained (fact known, opinion, attitude) in another. Then analyze the questions to assure they cover the topics and produce the kind of information they were designed to solicit.

2. Weigh the tentative questions to determine if its relative importance warrants its relative emphasis in the questionnaire.

3. Weigh the results against some other valued measure (for instance, reports, recorded observations, etc.).

4. You may wish to record construct (a psychological quality we assume exists in order to explain some aspect of behavior, i.e., reasoning ability) by a comparison of scores of known groups, or a comparison of scores of before and after treatment, or correlate with other questions.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (i.e., questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.

8.2.2.2.B
(continued)
Section D:
(continued)

Evaluation Criteria

5. Examine the questions to see if they carry any of these problems which will affect the content validity:
unclear directions
poor vocabulary choice or sentence structure
inappropriate level of difficulty
poor item construction (clues to answer)
ambiguity
question inappropriate to outcome to be measured
questionnaire too short
improper arrangement of questions
discernible pattern of answers

To examine for reliability:

1. Question, later re-question, and correlate scores to determine stability.

2. Use two equivalent questions or questionnaires-administer to same respondents and correlate. Measure the degree to which both forms are measuring the same aspect of respondent behavior.

3. It may be wise, sometime, to measure for internal consistency. While the book discusses split-half method and Kuder-Richardson Formula 21

$$[\text{Reliability Coefficient} = \frac{K}{K-1}(1\frac{M(K-M)}{KS_2})$$

where K = the number of items
M = the mean (arithmetic average) of the scores
S = the standard deviation]

but both of these methods assume a right and wrong answer-and are therefore not applicable. However, there can be a check on the consistency with which the respondent answers—for example on questions covering the same content but looking for fact known and opinion—which could provide some information on the questions themselves as well as the respondent. This might be an excellent question fo a seminar discussion.

Competency Component:	8.2.2	To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.
Behavioral Objective:	8.2.2.2	The trainee will be able to develop appropriate techniques (i.e., questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.	*Evaluation Criteria*
8.2.2.2.B (continued) Section D: (continued)	To test for objectivity--questions may be read specifically for clues, bias, etc., first by the author, and, preferably, by any outside authority. To test for comprehensiveness--the list made for the validity check (content and type) may be used to establish the comprehensiveness of the questionnaire. Too many questions lead to poor answers, but enough questions must be asked to assure proper sampling of the content. The references for this activity are test and measurement books which are dealing primarily with constructing tests with correct and incorrect answers rather than constructing questionnaires to gather information. Yet most of the material(s) is applicable and gives the trainee an opportunity to learn one body of knowledge and apply it to a new situation. How well he makes the application forms the basis for judgment of his performance.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (i.e., questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.

8.2.2.2.C

Evaluation Criteria

This is the culminating task for this series of activities on the questionnaire. It should, therefore, be complete and demonstrate the trainee's understanding of the components studied and his ability to integrate the components and apply them in a new situation. The evaluation is to be made in two parts: 50% for the application as shown by the questionnaire, 50% for the accompanying report to be divided as follows:

15% - explanation of procedure

15% - explanation of questions (types and forms)

15% - tests for reliability, validity, objectivity, and comprehensiveness

5% - tabulation and presentation

Both the questionnaire and report must be in acceptable form before a passing grade could be given; acceptable score would be at least 40% on each and a total score of no less than 85%.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (i.e. questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.	*Evaluation Criteria*
8.2.2.2.D Section 1	The trainee is given the advantages and disadvantages of the interview as a technique for obtaining information in this activity. How well he can use that information will be judged by the situations he selects as appropriate to the interview. Each trainee will describe two different situations but each situation should include several advantages. These situations can be very brief. In addition, the advisor may wish to either play devil's advocate himself, or assign two students to debate the best procedure for a given situation. There are two fine resources on the UMC campus for further discussion on the interview process--Director of Institutional Research, Joe L. Saupe, and the Public Opinion and Survey Unit, John Leuthold, Director.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (i.e. questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.

8.2.2.2.D
(continued)
Section 2

Evaluation Criteria

The ten question types referred to in this activity are as follows:

1. Leading questions, used in opening up a topic on which opinions are desired. Examples: "What do you think about the problem of minority groups in this country? Jewish problem? Black problem?"

2. Comparative questions, used in forcing respondents to make preferential judgments among content items. Examples: "What minority group do you find the least attractive? Which do you like the least?"

3. Recall-of-past-event questions, used in obtaining what respondents remember about a given event or type of event. Examples: "What do you remember about . . .?" "Under what circumstances did such and such a phenomenon occur?" "What happened?"

4. Recall-of-past-respondent behavior, used frequently to specify concrete performance data as a prelude to asking how typical such behavior is of respondents. This procedure provides respondents with precise recall cues, and tends to minimize tendencies to distort responses to the general questions that follow. Examples: "For whom did you vote in the primary? What made you vote for him? Did you know the religions of the candidates? Were you influenced for or against any candidate because of his religion?" These questions might well precede the following general question rather than merely being asked without appropriate buildup: "Do you usually tend to consider a candidate's religion in making up your mind for whom (Jahoda et al., 1951, p. 169)

5. Feeling questions, used to obtain subjective, affective reactions to past or present events. These may be asked either directly (examples: "How did you feel about . . . ?" and "Did that bother you?" or nondirectively, reflecting the affective content of a previous statement (examples: "You were really upset about . . . " and "That annoyed you somewhat").

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (i.e. questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.

8.2.2.2.D
(continued)
Section 2
(continued)

Evaluation Criteria

6. Cause-effect questions, used in determining respondents' reasons for particular happenings and situations. Examples: "What factors were associated with it?" "What caused it?"

7. What-was (is)-there-about-it questions, used in stimulating respondents to cite additional details about their reactions, opinions, or happenings. Examples: "What specifically was it that upset you so?" and"What bothered you most obout what happened?"

8. Would questions, used to assess respondents" beliefs about action standards. Examples: (to a Caucasian R) "Suppose that when you open the door for the boy who has made a date with your 18-year-old daughter, you find that he is a Black, what would you do? Why?"

9. Should questions, used to assess respondents' beliefs about preferred an ideal actions and situations. Examples: "In your opinion should children be bused across town in order to balance the proportions of white and black children in schools? Why do you think this?" The investigator should keep in mind, of course, that the ideal response often guides what to say on formal occasions rather than what to do in everyday behavior.

10. Why questions, used for a variety of purposes. In general, why is used to probe for more detail than has been given in response to an earlier question. It serves in this follow-up function, as illustrated in the examples cited of should and would questions (item 8 and 9). Why is often used in the historical sense, meaning "How did you come to . . . ?" or "When did you begin to . . . ?" It may be used to find out those characteristics in a given entity that provoked a given response to What-was-there-about-it questions (item 7 above). It can be used to discover the evidence one has for holding a particular belief (example: "What experience have you had that makes you believe this way?"). It is often used to get at respondents' motives for doing something (examples: "Why did you do it?" "What got into you?")

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (i.e. questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.

8.2.2.2.D
(continued)
Section 2
(continued)

Evaluation Criteria

The trainee was given the task of developing one question of each type given the objective of assessing why teachers do (or don't) use commercially available transparencies in class. Examples follow; the trainee's questions will not be the same, but must illustrate the type of question to be used.

1. Leading question: How do you feel about using commercially prepared transparencies in your classroom?

2. Comparative question: Do you find the commercial transparencies or locally produced transparencies better meet your needs?

3. Recall-of-past-event question: Can you remember a specific commercial transparency(ies) that you felt was very good for the immediate learning situation?

4. Recall-of-past-respondent behavior: Do you use commercial transparencies often in class? When you used them did you feel they were successful in relaying information?

5. Feeling question: Do you feel using commercial transparencies distracts the class from the total learning situation? From you as teacher?

6. Cause-effect question: Why do you use commercial transparencies in class?

7. What-was (is)-there-about-it question: What, specifically, was inappropriate about the commercial transparency you used?

8. Would question: Suppose a whole set of commercial transparencies were made available which were designed to help mentally retrarded children tell time. Would you use these materials?

9. Should question: Do you think more Special Education teachers should use commercial transparencies?

10. Why question: Why do you think teachers use commercial transparencies?

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (i.e., questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.	*Evaluation Criteria*
8.2.2.2.D (continued) Section 3 (continued)	Why do you feel that way? Why do you think that is so? What figure do you think comes closest?

Expansion of Answer: Do you have any other reason for feeling as you do?

c. Other Probing Techniques include:
Repeating the respondent's reply with a neutral probe at the end.
An expectant pause with a questioning look after the respondent has made a brief answer.
Brief assenting comments, such as "yes", "I see", "uh-huh", or "that is interesting" (these comments made in a hesitating or inquiring tone to encourag further answers).

16. If the respondent appears to lose interest, it might be helpful to change the pace (ask outside questions, reassure the respondent) before completing the planned questioning.
17. Do not proceed to another question until you are certain the respondent has given a clear, complete, and codeable answer to each.
18. Draw the interview to a friendly close.
19. Be sure to edit your materials as soon as possible.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (i.e., questionnaires and interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.

8.2.2.2.D

Section 3

Evaluation Criteria

The first part of this activity allows the trainee to develop the handout he would give to prospective interviewers. While individual forms would differ, they should contain at least the following:

The interviewer should:
1. Know his own biases and prejudices and learn to keep them out of the interview.
2. Ask clear and neutral questions rather than leading and/or suggestive questions.
3. Plan and control the interview.
4. Remain relatively impersonal--do not convey any emotion other than sincere interest.
5. Establish rapport early--by being friendly, sincere, interested.
6. Listen carefully; don't interrupt.
7. Allow interveiwee to talk: a rough division would be interviewer 30%, interviewee, 70%.
8. Interview in private, free from interruptions (one person at a time).
9. Become completely familiar and at ease with the plan and questions of the interview before the respondent arrives.
10. Decide how to record the information you receive and check your material as soon as the interview is over.
11. You should identify who you are (if the respondent doesn't know) and may wish to explain what you are doing and why you are doing it.
12. Try to ask the same questions of everyone so that their answers may be recorded and quantified.
13. Study the questions to be answered so that you know not only their form, but their intent and objective.
14. When an answer is incomplete, or does not meet the objective of the question, probe until it does.
15. Learn the probe techniques and be able to use them:
    a. The simplest probe is to repeat the question.
    b. Acceptable neutral probes:

Clarification of answer:

What do you have in mind when you say that?
Can you give me an example of that?
How do you mean that?
I don't quite understand what you mean--
Can you explain that a little more fully?

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (e.g., questionnaires, interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No. — *Evaluation Criteria*

8.2.2.2.E.

This activity allows the trainee to demonstrate his understanding of the whys and hows of interviewing. It is a performance task in which he is to conduct interviews with three different teachers using the objective of his choice and carefully constructed questions and probes. The maximum length of each interview is fifteen minutes and all interviews are to be taped.

Upon completing the interviewing phase, the trainee is to tabulate, analyze, and report his findings. At this point you have several measures of his success- the quality of the objective, questions, and probes as written, the recording of the interview to see if the questions and probes were used and the objective met, and the report of the results by the trainee to measure his ability to use the material he gathers. Since the trainee has had work in establis ing objectives, writing questions, kinds of questions, and probes, his written preparation should be good and he should be able to tabulate his findings and report them.

If the trainee has failed to meet any of the following requirements, the activity should be returned and revised at this time:

1. Well stated objective which can be treated in a fifteen minute period.
2. Questions which are accurate, comprehensive, reliable, valid, an that produce answers which can be coded for tabulation.
3. Probes when useful.
4. A report which tabulates and records the answers received, and makes some analysis of the data gathered.

If the tape and report indicate a satisfactory mastery of the requirements, evaluate the second half of this assignment.

Up to this point the trainee has not had any actual experience in interviewing. It has been theory but no practice. In the preceding activity (8.2.2.2.D Section 3) the trainee developed a handout to prepare interviewers for their task. This could serve as criteria to measure their performance here. At any rate, the trainee is requested to evaluate his own tape at this time. His evaluation is to include how well the advantages of the interview were used, and how well he met the responsibilities, followed successful procedures and utilized the techniques for conducting interviews. It is im-

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.2 The trainee will be able to develop appropriate techniques (e.g., questionnaires, interviews) for obtaining information from school personnel on the use of instructional materials.

Activity No.	*Evaluation Criteria*
8.2.2.2.E (continued	portant that the instructor evaluate the tape at this time in order to compare his evaluation with the trainee's self-evaluation. The success of this part of this assignment must be judged by the trainee's insight into his own strengths and weaknesses.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of the available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.3 The trainee will be able to utilize the records of the I.M.C., or the lending facility, to ascertain the use of materials by school personnel.

Enabling Activities	*Resources*	*Comments*
8.2.2.3.A Many instructional materials are used daily in Special Education classrooms. Some are commercial materials and some are locally produced. Since the judicious use of appropriate media facilitates learning, the curriculum consultant should know what materials are being used, by whom, and in what ways. This type of information will help you, as a curriculum consultant, determine the needs of the system, teachers, and indirectly the children, you serve. In order to determine the use currently being made of available materials you should be able to identify and use records that are made and design, if necessary, reocrd keeping systems that will allow you to summarize and tabulate the use of materials by teachers. All of this work need not be done by the curriculum consultant alone. Many other facilities and administrators keep records which, when located, can be used by you to obtain the information you need. Most school systems have a central facility for lending materials.	8.2.2.3.A 1. Resource File 8.2.2.3.A 2. Brown, J.W., and Norberg, K.D. Administering Educational Media. New York: McGraw-Hill Book Co., 1965. P. 172.	

8.2.2.3.A (continued)

and equipment; Special Education teachers may use the Special Education Instructional Materials Center when such a facility is availalbe. These centers use some sort of order form or recording system which provides a permanent record of materials loaned to school personnel.

This is an inexpensive way to gather data and is not difficult to administer. It is important to you in your role of curriculum consultant that the form include items to produce the following information:

1. Use of material and equipment by category
2. Use of specific items, such as titles of motion pictures or tape recordings
3. Use by specific teacher
4. Evaluation of material or equipment by user
5. Comments when appropriate

Samples of order forms are in File 8.2.2.3.A. Records such as these are useful when put to a purpose--they may be used for example, to:

Determine the extent to which existing facilities and resources are used.

Identify which teachers make use of the various media, those who may have made excessive or

Behavioral Objective *Continued:*

8.2.2.3.A (continued)

indiscriminate use of some materials of media, and those whose repertoire of instructional techniques may be unduly restricted.

Provide information for organizing and staffing administrative and service operations, thus ensuring adequate facilities, equipment, materials, and services for good utilization.

Use a school system of your choice to review the records of their lending facility to verify whether or not their records provide the information you feel should be included.

Tabulate, if it has not already been done, the use of Special Education teachers in one year of:

1. Materials by category (e.g., film loops)
2. Equipment by category (e.g., 16mm projector)
3. Specific items (e.g., "Loop to Learn Colors By" - McGraw-Hill)

Then review the records and tabulate the individual use, by at least one Special Education teacher, of materials and equipment by category, and specific items.

8.2.2.3.A (continued)

Determine if there are any patterns emerging, either for individual teachers or for all the Special Education teachers.

8.2.2.3.B

This objective deals directly with the records of a lending facility. You should recognize, however, that other records are available to you which are potential sources of information on teacher use of instructional materials. As curriculum consultant you will have many opportunities to take advantage of these records if you are aware of what they are and how to use them.

A slide-tape presentation in Resource File 8.2.2.3.B presents some of these. View this and use it to help you list as many other potential sources as you can.

8.2.2.3.B

Resource File 8.2.2.3.B

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commerical and teacher-made.

Behavioral Objective: 8.2.2.3 The trainee will be able to utilize the records of an IMC or other lending facility to ascertain the use of materials by school personnel.

Activity No.

Evaluation Criteria

8.2.2.3. A

Most school systems keep records which can be used by the curriculum consultant to gather objective data on the use of materials and media within the system. This activity was designed to meet three objectives:

1. To enable the trainee to identify available records used by a lending facility in a school system.
2. To enable the trainee to identify information that exists through the record keeping system of the facility.
3. To enable the trainee to identify means of obtaining additional information through the lending facility.

Within the activity the trainee is given specific information on the type of records which should be kept, where to find them and how to identify them, what information records should yield, and what the data may be used for. The trainee is then instructed to visit a school system and report upon his findings. The report must contain the following information to meet criteria:

1. The type and location of the lending facility.
2. The type(s) of records kept (i.e., card file for loans, records of equipment repairs, records of movie rentals, etc.)
3. The information contained within each record.
   Who used the media-department, curricular area, specific teacher
   Material by category--film loop, 16mm projector, etc.
   Specific item ("Loops to Learn Colors By")
   Condition of media
   (etc.)
4. The uses made of the records by the system.
5. An evaluation and any recommendations on the records kept.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.3 The trainee will be able to utilize the records of an IMC or other lending facility to ascertain the use of materials by school personnel.

Activity No. — *Evaluation Criteria*

8.2.2.3.A (continued)

In addition the trainee is requested to tabulate the use by the Special Education Teachers and the individual use by one Special Education teacher. This could be done most effectively in chart or graph form but should be completed by the trainee to give him practice in the utilization of existing records.

8.2.2.3.B

The slide-tape presentation given the trainee in this activity clearly defines several additional sources of records which produce data of value to the curriculum consultant on the use of materials and media by Special Education teachers. These records included:

1. Teachers' inventories of their own materials.
2. Teachers' daily lesson plans.
3. Teachers' unit plans.
4. Teachers' anecdotal records of students.
5. Teacher plans for seatwork—including materials, equipment needed and often evaluations.
6. Requisition requests from teachers.
7. Student reaction and evaluation forms.
8. Records by teachers of non-projected materials (i.e., bulletin boards, aquariums, etc)
9. Records of student produced media.
10. Recorded observations of superiors--i.e., supervisors, principals
11. Attendance at in-service.
12. Records of requests for consultation.

Other sources the trainee is asked to list might include:

1. Records of materials purchased by the schools.
2. Teacher's file tabulations.
3. Observations by interested personnel.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of the available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.4 The trainee will be able to design a comprehensive record keeping system for materials used and evaluated by school personnel.

Enabling Activities	*Resources*	*Comments*
8.2.2.4.A The curriculum consultant must decide what records are likely to be available and useful in determing the use being made of instrucional materials. However, it is only when you do, in fact, put data into understandable forms and use it to meet instructional goals and aid in curriculum planning and development that you have made a significant contribution as a curriculum consultant for Special Education. The collection, gathering, and tabulation of available information, and recognition of the need to gather new data is too important a task to be left to chance. Your ability to gather and organize meaningful data is a great potential contribution. For this reason you should be able to design and maintain a system which reviews, reduces, and records available data in order to: A. Summarize, monthly and annually, available records. B. Provide review of available data to determine what other information is needed or would be beneficial that available records do not provide.		

Behavioral Objective ***Continued:***

8.2.2.4.A (continued)

C. Provide the means (i.e., through questionnaires and interviews) of gathering, recording and storing additional data gathered.

When this is done, necessary reliable data will be available to guide decisions in the area of developing instructional materials.

Examine your own ability to determine existing data and design a record keeping system. Choose a school from the UCEA data bank.

1. Determine what records are kept that would provide information on the use and evaluation of materials by the instructional staff.

2. Decide how you would quantif- these records monthly and annually to provide significant information on the current use of instructional materials by Special Education teachers.

3. Determine what additional records should be kept by the system to ascertain what use is being made of instructional materials.

4. Decide what techniques should be used to gather data not available through the school records.

5. Prepare a report listing your conclusions on the record keeping.

Behavioral Objective Continued:

8.2.2.4.A (continued)

system of the school and vour recommendations for supplementing this information and for providing and/or maintaining a systematic approach to record keeping.

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.4 The trainee will be able to design a comprehensive record keeping system for materials used and evaluate by school personnel.

Activity No. — *Evaluation Criteria*

8.2.2.4.A

Data collection, through existing records and other techniques such as the interview and questionnaire, have been examined in this module element. This particular activity is an attempt to assist the trainee in synthesizing his previous work by presenting him with a data bank and allowing him to establish the range of collection activities and procedures for the school of his choice.

Specifically, the trainee is required to determine sources of available data and design a record-keeping system to provide data necessary to making decisions in the area of developing curriculum and accompanying instructional materials needs. To do this the trainee must:

1. Determine what records are kept that would provide information on the use and evaluation of materials by the instructional staff.
2. Decide how you would quantify these records monthly and annually to provide significant information on the current use of instructional materials by Special Education teachers.
3. Determine what additional records should be kept by the system to ascertain what use is being made of instructional materials.
4. Decide what techniques should be used to gather data not available through the school records.
5. Prepare a report listing your conclusions on the record keeping system of the school and your recommendations for supplementing this information and for providing and/or maintaining a systematic approach to record keeping.

Each analysis and report will differ and must be evaluated separately. However, each part of the activity must be completed and the answers should indicate:

1. An ability to recognize sources of existing data (available records).

Competency Component: 8.2.2 To assist the trainee in ascertaining what use is being made of available instructional materials: commercial and teacher-made.

Behavioral Objective: 8.2.2.4. The trainee will be able to design a comprehensive record keeping system for materials used and evaluated by school personnel.

Activity No.

Evaluation Criteria

8.2.2.4.A (continued)

2. A plan for the collection of usable data from these records and a means of quantifying the information on a regular basis. This is the responsibility of the curriculum consultant, and although the authority to fulfill the plan might be delegated, the initiation and creation belong in the hands of the consultant.

3. An analysis of the types of information to be gained from existing records and a projection of other types of information that would be needed to make administrative decisions.

4. A plan for gathering the additional needed information--giving both method (i.e., questionnaire) and schedule (i.e., beginning and end of school year) to be used.

5. A report which synthesizes what is being done and recommends alterations or additions based upon the findings.

Since this is a culminating activity, the work should show an integration of what has been studied into the practical behavior plans of the trainee. Creativity and insight, hopefully will be shown in the report--you may have to settle for thoroughness and competence.

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objectives:

8.2.3.1 The trainee will be albe to develop organizational procedures and practices which facilitate the use of instructional materials by the teaching staff.

8.2.3.2 The trainee will be able to initiate and coordinate the implementation of changes which lead to greater staff utilization of instructional materials.

8.2.3.3 The trainee will be able to develop creative, innovative means of promoting the use of instructional materials.

8.2.3.4 The trainee will be able to develop an in-service training program on instructional materials.

Competency Component: 8.2.3 To assist the trainee in developign procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.1 The trainee will be able to develop organizational procedures and practices which facilitate the use of instructional materials by the teaching staff.

Enabling Activities	*Resources*	*Comments*
8.2.3.1.A The effective use of media was strongly promoted following World War II. Many educators and legislators felt that making media equipment available would readily insure the use of media in every classroom. Therefore, legislation was passed which provided most schools with the opportunity to fulfill their media equipment needs by using federal funds. The systems, educational and legislative, brought the technological age into the local schools. But they found that by and large it was only the teacher who could bring media to the classroom. The simple answer of merely providing the equipment had not solved the problem of effectively utilizing media in the classroom. Unfortunately, there is still no simple answer to the problem of guaranteeing the use of the best mediums, with the best materials, in the appropriate teaching/learning situations. In your job as curriculum consultant you should be aware that the problem exists--and the reasons for its existence are of particular concern to	8.2.3.1.A 1. Brown, J., and Norberg, K. Administering Educational Media. New York: McGraw-Hill Book Co., 1965, P. 174. 2. School personnel: an administrator, a Special Education director, a Special Education teacher.	

Behavioral Objective Continued:

8.2.3.1.A (continued)

you, both on the administrative and policy setting levels, and in the more intimate role of counselor and advisor, both for teachers, audiovisual personnel, and administrators, that you can help remove some of the barriers that remain between utilization and neglect.

Necessary equipment must be available before the teacher can be expected to use it. That is obvious. But in your role as curriculum consultant you will need to go beyond this elementary level. You will need to be committed to the use of media by Special Education teachers and will have to promote the use of appropriate equipment and materials in the classroom. To do this you will have to identify what is necessary for effective utilization and what barriers to effective utilization exist.

Many approaches to encouraging use have been made in past years. Effective production facitities, knowledge and skill on the part of teachers in the use of the various mediums, free time for preparation--all of these and many more have been identified as important aspects of teacher utilization. But one of the first and most direct means you can employ in promoting the use of instructional materials is to become aware of the good procedures, those which result in the widest and most effective employment of the teaching aids--equipment and materials--available.

Behavioral Objective . Continued:

8.2.3.1.A (continued)

Effective utilization of educational media has, according to Brown and Norberg, the following requirements:

1. Carefully selected instructional materials and equipment, reliably and conveniently available and in good supply.

2. Adequate space and facilities providing convenient location and operational equipment, as well as sufficient control over physical conditions such as light, acoustics, and ventilation.

3. Teachers who have the requisite knowledge of behavioral processes and media characteristics.

4. Teachers who have the skills to work effectively with an enlarged repertoire of devices and techniques and with personnel involved in joint instructional activities.

5. Teachers who have the motivation to cope with technological change and to experiment with new ways of teaching in a continuing search for better results.

6. Consultative services drawing upon a wide range of supervisory and administrative personnel who look upon utilization of media as an integral aspect of the total prolem of good teaching, but one that

Behavioral Objective Continued:

8.2.3.1.A (continued)

requires constant and serious attention.

7. Pre-service training geared to the demands of modern teaching.

8. In-service training that emphasizes meaningful and voluntary teacher involvement in a "try-it-out-and evaluate" approach to better instruction.

9. Appropriate use of various communication media to support and augment in-service training for utilization of instructional media.

10. Adequate information to determine and evaluate current utilization practices and explore ways of improving them.

Study these requirements until you feel you can place then in a rank order of most to least important.

Give the same list (as presented, not as you have ranked it) to three different people: a school administrator (i.e., principal, assistant superintendent), a Special Education Director, and a Special Education teacher--and have them rank it. Interivew each person to find out what factors they considered in making their decision.

8.2.3.1.A (continued)

Compare the results with your rating and between the subejcts. If substantially different, you may wish to change your rankings, or return to the interviewee to gain additional information and insight. When you are satisified with your rank ordering, present the entire activity to your advisor for discussion.

8.2.3.1.B

The previous activity (i.2.3.1.A) provided you with a list of requiremetns for effective auilization of educational materials and media. Each requirement is important, but, once a need is recognized, there must be developed a means to meet the need. As curriculum director, your problem will be in meeting the requirements. One way is by establishing organizational procedures, wherever possible, which are in accord with the conditions of the requirement for effective utilization.

Select four requirements, probably those considered most important, and develop a list of organizational prodecures which would implement these requirements. A sample is provided in the Resource Section.

8.2.3.1.B

Carefully selected instructional materials and equipment:

Requirements:

1. Professional personnel to evaluate on the basis of reliable criteria, materials and equipment for use by Special Education teachers and their students.

(Procedures)

a. To hire competent personnel such as curriculum consultants and learning resource directors.

b. To develop clearly defined job descriptions for such personnel including, in this case, evaluation of materials and equipment.

c. To provide for regular review, evaluation, and implementation

8.2.3.1.B

Although you only work with four requirements here, the process you follow would be the same for all of them.

8.2.3.1.B (continued)

of recommendations through higher administrative channels.

2. Professional personnel with time and financial resources to investigate new materials and equipment and make recommendations as to their usefulness.

   a. To hire competent personnel with an understanding of learning processes and equipment capabilities.

   b. To develop criteria for material and equipment selection.

   c. To allow sufficient time for personnel to investigate, test, and evaluate new media.

   d. To establish budget requirements which allow for acquisition of appropriate materials and equipment.

   e. To provide release time and expenses for qualified personnel to attend conferences, conventions, etc., where new materials and equipment are displayed and/or demonstrated.

   f. To establish clear procedures for recommendations on materials and equipment purchase.

3. Special Education teachers who have the knowledge, and time and

8.2.3.1.B (continued)

encouragement to help in the evaluation of currently available materials and equipment.

a. To provide vehicles (i.e., evaluation forms, questionnaires, consultations) for Special Education teachers to record their evaluations of available materials and equipment.

b. To provide staff and group meeting time for teachers to evaluate educational media available.

c. To summarize evaluations made by the teaching staff and itemize recommendations based upon these evaluations.

d. To provide in-service training, and similar educational opportunities, for teachers who need to expand their knowledge in the area of instructional materials and media.

4. Teachers and supervisory personnel who can maximize the assistance of Special Education Regional Centers and national resources such as Exceptional Children to utilize evaluations already made.

1. To provide a resource center which is affiliated with the national Special Education Instructional Materials Center Network.

8.2.3.1.B (continued)

b. To provide a professional library for teachers which includes magazines and books with reviews and/or evaluations of equipment and materials in the AV field.

c. To provide resource personnel who both know the available sources of assistance and are committed to effective utilization of media.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.1 The trainee will be able to develop organizational procedures and practices which facilitate the use of instructional materials by the teaching staff.

Activity No.

Evaluation Criteria

8.2.3.1.A

The trainee was given a list of 10 requirements for the effective utilization of educational media.

The trainee was to study the list and arrange the requirements in rank order from most important to least important. The trainee was to then ask 3 additional people to rank the requirements, (preferably a Special Education Director, an Administrator and a Special Education teacher) then interview them to determine the rationale behind their decisions.

Finally, the trainee was to compare his ratings with the others and formulate some conclusions and reaction, all of which is to be submitted.

The requirements and a suggested format are included below:

Rankings

Administrator	Special Educ. Teacher	Special Educ. Director	Trainee	Effective utilization of educational media has the following requirements:
				1. Carefully selected instructional materials and equipment, reliably and conveniently availabe and in good supply.
				2. Adequate space and facilities providing convenient location and operation of equipment, as well as sufficient control over physical conditions such as light, acoustics, and ventilation.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.1 The trainee will be able to develop organizational procedures and practices which facilitate the use of instructional materials by the teaching staff.

Activity No.

8.2.3.1.A
(continued)

Evaluation Criteria

Rankings

Administrator	Special Educ. Teacher	Special Educ. Director	Trainee	Effective utilization of educational media has the following requirements:
				3. Teachers who have the requisite knowledge of behavioral processes and media characteristics.
				4. Teachers who have the skills to work effectively with an enlarged repertoire of devices and techniques and with personnel involved in joint instructional activities.
				5. Teachers who have the motivation to cope with technological change and to experiment with new ways of teaching in continuing search for better results.
				6. Consultive services drawing upon a wide range of supervisory and administrative personnel who look upon utilization of media as an integral aspect of the total problem of good teaching, but one that requires constant and serious attention.
				7. Pre-service training geared to the demands of modern teaching.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.1 The trainee will be able to develop organizational procedures and practices which facilitate the use of instructional materials by the teaching staff.

Activity No.

8.2.3.1.A
(continued)

Evaluation Criteria

Rating

Administrator	Special Educ. Teacher	Special Educ. Director	Trainee	
				8. In-service training that emphasizes meaningful and voluntary teacher involvement in a "try-it-out-and-evaluate" approach to better instruction.
				9. Appropriate use of various communication media to support and augment in-service training for utilization of instructional media.
				10. Adequate information to determine and evaluate correct utilization practices and explore ways of improving them.

8.3.2.1.B

The trainee was to select four of the following requirements for effective utilization of educational materials and media, and develop a list of organizational procedures for implementing the requirements.

A sample response is included below and can be used as a model in evaluating subsequent responses.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.1 The trainee will be able to develop organizational procedures and practices which facilitate the use of instructional materials by the teaching staff.

Activity No.	*Evaluation Criteria*
8.2.3.1.B (continued)	Requirement I Carefully selected materials... Inventory and review present materials. Use usage records to see which ones are the most valuable. Check all materials and equipment to be sure it is in proper working order. Get rid of out-dated, unused materials to make more room for new things. Review the retrieval process—can a teacher find what she wants easily? Send out questionnaires and do some follow-up interviewing to determine- What materials should be available in greater supply. What materials should be available at each school or in each unit closet instead of at the media center. What additional materials are needed in what quantity, and where they should be stored to maximize use. Set up a teacher review board to aid in material purchases and distribution. Requirement II Adequate space and facilities... Establish... Storage rooms for each area of the building. It should be uncluttered and well organized. Materials should be labeled clearly. Sign out sheets should be posted in plain sight. Materials other than equipment should be categorized on shelves. Directions for use should be with each piece of equipment and material. Usage space in the classroom... Each classroom should have adequate wiring and many outlets. Windows should have shades which darken the room easily and quickly. Sufficient clear space should exist in each room to set up equipment for large or small group(s) use. Permanent screens should be installed in each room. Storage space for related teacher-made materials should be provided with files for dittos and transparencies, upright slots for posters, etc.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.1 The trainee will be able to develop organizational procedures and practices which facilitate the use of instructional materials by the teaching staff.

Activity No.

8.2.3.1.B
(continued)

Evaluation Criteria

Resource Centers:

The School Library should have accessible: filmstrips, tapes, spare pieces of equipment, additional games, books of resources for teachers, etc. The librarian should display these and know them well. She should be able to direct teachers to them.

School-wide resource center:
Similar to above, but much broader in scope.
Conveniently located.

School-wide media center:
The center for production should be conveniently located in the district.
Its hours should extend beyond regular school hours by 2 hours a day.
Trained personnel should be on hand to aid teachers.
All supplies should be always on hand.
Provide for regualr review of services offered and used in all areas from the media center to the classroom.
Develop criteria for additional purchases of materials and equipment.

Requirement III

Teachers who have skills...
Strongly encourage teacher to have at least one course in media.
Give extra pay for attending a series of in-service workshops on new media techniques and capabilities.
Send out informational brochures on new materials and equipment.
Always have trained personnel on hand in the media center to help teachers.
Advertise in a local newsletter what teachers are using the materials creatively and encourage joint efforts.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.1 The trainee will be able to develop organizational procedures and practices which facilitate the use of instructional materials by the teaching staff.

Activity No.	*Evaluation Criteria*
8.2.3.1.B (continued)	Requirement IV Consultative services... Require at the least, an in-service workshop on the advantages of media for all supervisory personnel to include principals, vice-principals, superintendents, assistant superintendents, supervisors, consultants, etc. Send them all monthly bulletins on new materials and creative uses for them. Encourage them to visit classrooms where media is being used well.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.2 The trainee will be able to initiate and coordinate the implementation of changes which lead to greater staff utilization of instructional materials.

Enabling Activities	*Resources*	*Comments*
8.2.3.2.A You are now familiar with four requirements for effective utilization of instructional materials and media and the organizational procedures which would be needed to meet these requisites. (Activity 8.2.3.1.A and 8.2.3.1.B). Only when this knowledge is translated into observable action has change taken place. Given a school system of your choice, observe which of the organizational procedures you identified are currently being practiced, which need modification, and which procedures have not been implemented. From your observation develop a list of desirable changes, ones that would lead to greater staff utilization of instructional materials. Then develop a priority listing--those changes that would have the greatest impact to those that would have the least. Determine which changes would require the greatest resources to implement--time, space, personnel, budget. Compare this list with your priority ratings and use both to design a one-year program for immediate implementation and a five-year program for longe-range improvements. You may, in addition, develop two alternate	8.2.3.2.A Activities 8.2.3.1.A and 8.2.3.1.B School System PERT as discussed in: Cook, D.L. Program Evaluation and Review Technique. U.S. Department of Health, Education, and Welfare: Pp. 10-13.	8.2.3.2.A The program you develop here should include the changes to be made and the activities that would be involved in implementing them. You are not, at this time, to make a thorough work schedule, or PERT for the project. Outline form will do.

8.2.3.2.A (continued)

programs--one for the optimum level of operation and one for the lowest acceptable level if you think it would be of interest or beneficial to you.

8.2.3.2.B

As a curriculum consultant you will work with and through many people in order to accomplish your goals. Whether your activities dealing with the board of education collectively or a Special Education teacher singly you will need to plan for effective interaction. In the initiation and implementation of change procedures, many people will have to help you.

The design for change may come from the curriculum consultant. Final decisions on organizational change are reached through administrative channels. It is important that you can identify and enlist the aid of appropriate individuals in support of your plan.

Identify, given the same school system you used in 8.2.3.2.A, the people whose support would be needed in establishing innovations. Develop a plan to gain administrative support for your one-year and five-year program. Be sure to include provisions for involvement of interested personnel through committees and study groups, written reports with supporting data to establish need, operational

8.2.3.2.B

1. Erickson, C. Administering Instructional Media Programs. New York: MacMillan, 1968. Pp. 39-55.
2. Brown, Norberg, and Srygley. Administering Educational Media. New York: McGraw-Hill Book Co., 1965. Pp. 367-369.

Although this deals with budget, some parts deal with the problem we are discussing.

8.2.3.2.B

Remember your job here is to identify key people and develop a plan to gain support. The actual reports, studies, speeches, etc. need not be developed.

Behavioral Objective Continued:

8.2.3.2.B (continued)

plans for changes, priority time schedules, feasibility studies, and persuasive materials to compete with existing priorities for resources available. You may wish to follow the plan in Erickson's book which includes: Enabling action, Evaluative Action, Energizing Change, Readiness for Change Action, Implementing Changes (pp. 46-47).

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.2 The trainee will be able to initiate and coordinate the implementation of changes which lead to greater staff utilization of instructional materials.

Activity No. *Evaluation Criteria*

8.2.3.2.A

In the preceeding activity the trainee chose four requirements for the effective utilization of educational media and materials and established organizational procedures for achieving them. The trainee was to take these four sets of procedures and go into a school system of his choice to determine if the procedures were currently being practiced, which need modification and which have not been implemented. From his observations the trainee was to develop a list of desirable changes that would lead to greater staff utilization of instructional materials and rank them in order of priorities. A sample response is included below and could be considered a model when evaluating subsequent responses.

Requirement I
- There is a part time curriculum consultant that evaluates materia equipment.
- His job is not clearly defined.
- There is no regular review, evaluation, and implementation of recommendations.

Requirement II
- Curriculum consultant understands learning processes and equipment capabilities.
- There is no established criteria.
- Sufficient time is not allowed for personnel to investigate materials.
- Budget requirements allow for acquisition of appropriate material equipment.
- Release time is allowed to attend conferences.
- No clear procedure for recommendations on material/equipment purchases.

Requirement III
- Special education teachers do not have the knowledge, time, and encouragement to help in the evaluation of material/equipment.

Requirement IV
- There is no resource center affiliated with national SEIMC.
- There is a professional library.
- Resource personnel are available but have not been contacted.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.2 The trainee will be able to initiate and coordinate the implementation of changes which lead to greater staff utilization of instructional materials.

Activity No.

8.2.3.2.A
(continued)

Evaluation Criteria

Changes

Hire learning resource director.

Develop clearly defined job description for curriculum consultant.

Provide for a regular review, evaluation, implementation and recommendations through higher administrative changes.

Develop criteria for material/equipment selection.

Allow sufficient time for personnel to investigate, test, evaluate new material.

Vehicle to record evaluation of materials, equipment.

Released time based on reward system for all qualified teachers.

Provide staff and group meeting time to evaluate equipment/ material, summarize evaluations, make recommendations.

Provide in-service training for teachers to expand their knowledge

Provide resource personnel who both know available sources of assistance and are committed to effective utilization.

1. Curriculum Consultant
    a. formulate job description-administration time
    b. formulate criteria - curriculum consultant time
    c. regular review - curriculum consultant and administation time

Since the curriculum consultant is already hired and provided for in the budget, the implementation of these procedures would requir only moderate amounts of time and should be implemented immediatel

2. In-service
   Requires perhaps the greatest resources of time, space, personnel and budget to be implemented but because of its prim importance, material/equipment are to be selected carefully an evaluated. It has top priority and should be implemented immediately.

3. Allow sufficient time to investigate, evaluate material.
   Once the staff has acquired the knowledge of materials/equipment, criteria for selection from in-service sessions, worksho should be periodically held to investigate new materials,-- involves time, but of prime importance and should be implemented immediately.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.2 The trainee will be able to initiate and coordinate the implementation of changes which lead to greater staff utilization of instructional materials.

Activity No. — *Evaluation Criteria*

8.2.3.2.A
(continued)

4. Vehicle to record evaluation of materials
requires only a blank sheet of paper or a checklist developed by curriculum consultant (on of his jobs) and 5 minutes of teacher time after material is used. Implement immediately.

5. Reward system
Since personnel are already permitted time off to attend conferences, a reward system could be started whereby teachers who adopt, construct a certain number of material/equipment or of exceptional quality are given time off to attend conferences. Positive reinforcement plus new ideas results: this involves the resource of money but the benefits to be accrued cannot be overlooked. Implement immediately.

6. Resource personnel
Certain members of a staff or administration are usually knowlegeable about media and if contacted would be willing to provide assistance to teachers. Implement immediately as it involves only the expenditure of time.

7. Learning resource director and Resource center
Both necessary but since involve great deal of time, personnel, space and expense--begin gradually. (5 yr. plan)

Immediate Implementation	5 yr. plan
curriculum consultant	learning resource director
a.	resource center
b.	
c.	
in-service	
time to investigate evaluate material/equipment	
vehicle to record evaluations	
rewards system	
resource personnel	

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.2 The trainee will be able to initiate and coordinate the implementation of changes which lead to greater staff utilization of instructional materials.

Activity No.

Evaluation Criteria

8.2.3.2.B

Enabling action

The trainee was to go back into the school system identified in activity 8.2.3.2.A and identify the people whose support would be needed in establishing innovations. Based on the personnel identified the trainee was to develop a plan to gain administrative support for the 1-year and 5-year programs proposed in the previous activity. The program was to include; 1) provisions for involvement of interested personnel through committees and study groups, 2) written reports with supportive data, 3) an operational plan for changes, 4) priority time schedules, 5) feasibility studies and 6) persuasive materials to complete with existing priorities for resources available.

A sample-response included below and could be considered a model against which subsequent responses could be evaluated.

1. Write reports with the aid of interested persons for key decision making personnel describing need for job definition of curriculum consultants, criteria for evaluation, in-service training. Workshops, vehicles of evaluation, reward system learning resource director and center, and increased budget allotment.

2. Organize existing personnel into situations where help can be given to teachers who are implementing charges.

3. Conduct meetings and issue bulletins establishing permissive climate for needed innovation.

Evaluative action

1. Prepare in written form priority time schedules for introduction of change efforts on media.

2. Collect data based on accurate observation of need for change in the use of media.

Organizing change

1. Organize and conduct meetings to stimulate teachers to make changes in their use of media within the classroom.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.2 The trainee will be able to initiate and coordinate the implementation of changes which lead to greater staff utilization of instructional materials.

Activity No.
8.2.3.2.B
(continued)

Evaluation Criteria

2. Prepare and distribute stimulating bulletins to principals and other administrators concerning effects of media in the classroom to facilitate their decisions concerning technological changes under their jurisdiction.

3. Write up proposals for 1 yr. and 5 yr. plan.

4. Identify people who are enthusiastic, amenable to innovation.

Readiness for change, action

1. Prepare public relations programs in all forms to develop a readiness for change and action in accordance with needs.

2. Identify successful programs that make effective use of media to achieve instructional goals.

3. Plan and carry out demonstrations of media under close to home situations.

4. Arrange visits for key administrators and others to observe innovations being considered as they are underway in the schools

Implement change

1. Provide step by step implementation procedures of 1 yr. and 5 yr. plan for staff.

2. Execute detailed plans previously made, approved, agreed on.

3. Provide praise for participation, creative efforts.

4. Make before and after comparisons of media use.

5. Provide information concerning results of #4.

6. Periodically check on progress of teachers.

Competency Component: 8.2.3 **To assist the trainee in developing procedures which would promote the use of instructional materials.**

Behavioral Objective: 8.2.3.3 **The trainee will be able to develop creative, innovative means of promoting the use of instructional materials.**

Enabling Activities	*Resources*	*Comments*
8.2.3.3.A It is generally easier to observe practices and procedures which are ongoing processes, and correct them, than it is to create new and original, creative processes of your own. It is also generally easier to work with practices and procedures than it is to work with people; the first are far more predictable and manageable than the latter. Therefore, your job as curriculum consultant is not easy--you should be able to develop creative, innovative means of promoting the use of instructional materials. While analyzing and improving the status quo is important, you should be able to go beyond the obvious and have insightful new answers and approaches. People have for years tried to define, refine, and measure creativity--usually with little success. They have been far more successful in analyzing people. And since it is through people that you must work, it will be most beneficial for you to know how to gain individual acceptance of the practices and procedures you recommend. The rest of the work in this activity deals with the process of gaining individual acceptance of innovation. But as you review the	8.2.3.3.A Resource File 8.2.3.3.A Havelock, R.G., A Guide to Innovations in Education. Ann Arbor, Michigan: Institute for Social Research, 1970.	

8.2.3.3.A (continued)

transparency-tape presentation in Resource File 8.2.3.3.A, try to expand this process to gaining group acceptance of innovations. For it works almost as well. Directions for completing this activity are included in the presentation.

8.2.3.3.B

Resource File 8.2.3.3.B contains a *table of specific forces suggested by teachers as relevant to the facilitation or hindrance of innovation-diffusion practices as well as two other articles discussing gaining teacher acceptance of change.

Review these materials to determine how these forces could be applied to the promotion of instructional materials by the curriculum consultant in Special Education.

Use this insight to develop a list of procedures and practicies which, if employed, would encourage the use of instructional materials by the teaching staff.

Commercial advertising is an excellent means of studying propaganda and promotion in action. Business has long since recognized the need for promoting their products and has become adept at creating a need where none was known to exist.

8.2.3.3.B

Resource File 8.2.3.3.B - containing:

1. *Lippett, R., et al. The teacher as innovator, seeker, and sharer of new practices. In R.I., Miller(ed.). Perspectives on Educational Change. New York: Appleton-Century-Crofts, 1967.
2. Van Wyck, W.F. Reducing teacher resistance to innovation. Audio-visual Instruction, March, 1971. Pp. 90-91.
3. Spellman, R. Motivating community college faculties to use systematic instructional techniques. Educational Technology, October, 1971. Pp. 32-33.

8.2.3.3.B (continued)

Go to the library and find at least three sources (look in Journalism, Speech, Politcal Science, under persuasion and propaganda) which discuss motivational appeals and incentive plans. Read several and list the best sources you find. Then choose a well-known reputable product(s) and review (1) the appeals used in advertisemenst (i.e., band wagon, sex, personal pleasure), (2) the various vehicles used for promotion (i.e., TV, billboards, circulars), and (3) the various incentives and inducements given to obtain acceptance (i.e., coupons, prizes).

Return to your list of practices and procedures and see how these more commercial techniques could be applied in education; revise your list, indicating appeals to be used to gain acceptance and motivations and incentives which might be used to promote the use of instructional materials.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.3 The trainee will be able to develop creative, innovative means of promoting the use of instructional materials.

Activity No.

Evaluation Criteria

8.2.3.3.A

The trainee was asked to review a transparency tape presentation which deals with the process of gaining group acceptance of innovations. Following the presentation, the trainee was to develop a set of procedures for convincing teachers of the merits in student produced films. One sample response follows and could be considered a model for future responses, although the variance in acceptable responses is broad.

1. Hold a brief meeting after school to show two films-"Bones"in the ESS curriculum and "Look at Me." "Bones" is a student-made movie filmed with color super 8mm film featuring what one science class did over a year's time in their investigation of bones. It is an excellent quality student-made film and illustrates one important capability of movies - help students to organize their material and serve as a recall agent for them, as well as being instructive to others.

"Look at me" is a combination of professional photographers filming children who are filming plus the film the children shot. Primary children in Appalachia were given super 8 cameras and turned loose. Their investigations of the common world around them provides infinate jumping off places for studies in science and language acts. Both films should excite awareness of the possibilities and some interest in learning more about how it's done.

2. At the conclusion of the filming, ask if anyone is interested in learning more about these techniques. If so, schedule another meeting for next week. During the week, send each teacher a brochur on the super 8 camera that lists its' working operations and costs.

3. At the second meeting bring a camera. Discuss how to use it, then let the teachers each shoot up a few feet of film.(trial) Encourage each to make his portion sequential. Discuss costs, lighting, etc. Answer questions. Schedule a third meeting to view the developed film.

4. At the third meeting view the film. Hand out a brief summary of the module on film making and discuss it. Make a decision on adoption.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.3 The trainee will be able to develop creative, innovative means of promoting the use of instructional materials.

Activity No. — *Evaluation Criteria*

8.2.3.3.A (continued)

5. If it was agreed on, help the teachers get all the necessary equipment. Discuss possible script ideas with teachers and/or students. Sit in on editing sessions if asked. Be available to help with any problems.

Then try to disseminate the finished films. Show them to other classes and other teachers. Write articles on them in your newsletter. Have the parents come in one night and see them.

8.2.3.3.B

Several steps were involved in completing this activity.
1. The trainee was given a table of specific forces suggested by teachers as relevant to the facilitation or hindrance of innovation-diffusion practices. Utilizing the information, the traine was to develop a list of procedures and practices which would encourage the use of instructional materials by a teaching staff. A sample list is included below.

1. Conduct a minimum of one in-service workshop each year, prefera before school starts in the fall. The goals of this would be to introduce new materials and equipment, get teachers to experiment with it, and train them in at least one other production skill. Emphasize the accessibility of the materials.

2. Send out a monthly newsletter that contains bulletins on new materials as well as older materials that aren't being used adequately. Include articles and photographs, if possible, on creative teacher uses of media. Encourage students to write these.

3. Select a teacher for the year award from each school based on creative or extensive use of media. Get nominations from other teachers and run a short feature story on each nominee.

4. Encourage administrators to take note of which teachers are using media and offer encouragements.
    - Pay for trips to conventions and workshops.
    - Urge other teachers to also use media.
    - Hire a substitute occasionally to allow a teacher extra time to produce media materials.
    - Have the teacher demonstrate her program after school to other teachers.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.3 The trainee will be able to develop creative, innovative means of promoting the use of instructional materials.

Activity No.

8.2.3.3.B (continued)

Evaluation Criteria

Create a position of media-consultant to the school librarian. Give the job, with pay inducements, to a willing teacher who likes to work with media. Switch the job among other teachers frequently.

2. The trainee was to go to the library and find three sources which discuss motivational appeals and incentive plans. The best resources were to be listed. Three random examples are listed below.

Visual Persuasion, Stephen Baker, McGraw Hill, '61.

The Hidden Persuaders, Vance Packard, David McKay Co. '57.

Advertising, 2nd ed.; John Crawford, Allyn and Bacon, Inc. '65.

3. The trainee was to choose a well know reputable product and review:

a. the appeals used in advertisements.
b. vehicles used for promotion
c. incentives and inducements given to obtain acceptance

A sample response is included below:

Volkswagens:

Volkswagen ads are found in a wide variety of magazines, billboards, occasional television spots and local agencies advertise in the newspapers.

The appeal is always very low key, humorous, occasionally even self-deprecating. The hardest hit piece of information refers to its low price and low running cost.

One status appeal compared the Volkswagen plus extra expensive appliance purchases with one expensive car. The cumulative effect is to build an emotional image for the car that is practical warm, lovable, smart economical, security with the familiar, friendly, appealing "real" people who also buy Volkswagens creating a comaraderie, emphasize unchanging familiar exterior and improvements internally.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.3 The trainee will be able to develop creative, innovative means of promoting the use of instructional materials.

Activity No. — *Evaluation Criteria*

8.2.3.3.B (continued)

4. Finally, the trainee was to look again at the list of practices and procedures he developed in #1 to see how the commercial techniques could be applied in education. The list was to be revised, indicating appeals to be used to gain acceptance and motivations and incentives which might be used to promote the use of instructional materials. Such a revision is included below:

Advertising Techniques Applied:

1. Workshop:
   Try to get teachers with social influence involved--make it an "in" thing to do. Advertise the workshop ahead of time through word - of - mouth, bulletins in teacher boxes, items in school newsletter, pressure from administration.
   Emphasize ease of operation and creativity of approach
   Avoid threatening situations in the workshops.
   Have all materials in the workshop attractively packaged and well prepared.

2. Newsletter:
   Include articles of information on new materials that emphasize ease of use, short teacher time needed, and expected (or proven) outcomes.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.4 The trainee will be able to develop an in-service training program on instructional materials.

Enabling Activities	*Resources*	*Comments*
8.2.3.4.A	8.2.3.4.A	
The in-service training program offers a great opportunity for a curriculum consultant to promote the use of instructional materials. The adaptability of the subject matter to the procedure is obvious. However, there are successful and unsuccessful in-service programs. It is not enough for you to be able to design an in-service program; the challenge for you as consultant will be to develop a successful program. The activities for this objective are designed to help you in this task by providing options so you can select appropriate strategies in implementing in-service trianing. One of the first decisions you will make developing an in-service program is what subjects should be included in the program. The curriculum consultant can decide this question alone, or may receive help from other sources. In other words, there are two major options available for deciding what subjects should be dealt with in an in-service training program: the administration, on the basis of their perceived needs, determine the areas where in-service training would be most helpful. Further,	1. Resource File 8.2.3.4.A(1) Selection basis - SEIMC - University of Missouri 2. Resource File 8.2.3.4.A(2) Meyen E.L., and Carr, D.L. An Investigation of Teacher Perceived Instructional Problems: Indicators of In-Service Training Needs for Teachers of the Educable Mentally Retarded. U.S. Department of Health, Education, and Welfare: Office of Education, Bureau of Education for the Handicapped, 1968. 3. Erickson, C.W. Administering Instructional Media Programs. New York: The MacMillan Company, 1968. Pp. 115-145. 4, Meierhenry, W.C. Integrating learning centers into the curriculum. In M. Gunselman, (ed.). What Are We Learning About Learning Centers? Oklahoma City: Ealge Media, 1971. Pp. 49-52.	

Behavioral Objective *Continued:*

8.2.3.4.A (continued)

any combinations of the two are feasible. You have already identified sources of information on teachers' use of various mediums, and studied how additional information can be obtained. The decision here is one of in-put and emphasis--whether the decision is to be autocratic or democratic. Resource Files 8.2.3.4.A(1) and (2) contain samples of types of questionnaires which can be used to determine teachers' perceived needs. Resources 2, 3, and 4 discuss the available options. Read these, and any others you think are appropriate, until you can list the advantages and disadvantages of each approach; work out at least one combination of the two.

Then, given as your service area the Special Education teachers of the school district of your choice, defend your selection of one of the options available when given the task of planning an in-service program for a weekend training session.

8.2.3.4.B

The nature of the in-serivce training allows for alternatives to workshops as viable means for the professional growth of teachers while they are practicing their profession. The curriculum consultant should use as many avanues as possible to promote the

8.2.3.4.B

1. Resource File 8.2.3.4.B which contains:

   Tanzman, J. Don't forget media in teacher training programs.' Educational Administration.

8.2.3.4.B (continued)

effective utilization of materials and media by Special Education teachers. This is an area where you can be of great assistance in providing as many opportunities and alternatives for in-service growth as possible.

The resource section of this activity provides several examples of formal and informal in-service training. Use this as a begining, and develop your own list of in-service training possiblities. Use your own experiences, the professional literature, and observations/interviews to expand as far as you can the alternative routes.

8.2.3.4.C

The point of in-service training is to bring about desireable changes in teacher behavior, in this case, the effective utilization of meida. To reach and change teacher behavior Flanders (Teacher Behavior and In-Service Programs, Educational Leadership, 21, (October, 1963, pp. 25-29) has suggested:

> Proposed ideas about teaching and learning must be organized into

8.2.3.4.B (continued)

(contirued)

2. Chalmus, J. Promote your IMC. Audiovisual Instruction, September, 1969, 11, 34-36.
3. Chalmers, J.J. Audiovisual in-service training. Audiovisual Instruction, May, 1970 .
4. Lawler, M.R. Curriculum Consultants at Work. New York: Bureau of Publications, Teachers College, Columbia University, 1958.
5. Erickson, C.A. Organizing effective in-serivce education programs. Administering Instructional Media Programs. New York: Macmillan, 1968. Pp. 93-148.

8.2.3.4.C

1. Flanders, N.A. Teacher behavior and in-service programs. Educational Leadership, October, 1963, 21, 25-29.
2. Talburt D. Years Outline: In-service Training for Teachers. (Media), October, 1963, 21, 25-29.

8.2.3.4.C

You will actually have three pages due in this activity:

1. An evaluation of one of the programs given in the Resource File.
2. An actual evaluation of a school in-service program.

8.2.3.4.C (continued)

concepts which have meaning in terms of overt behavior.

Concepts about teaching and learning become useful to the extent that they can be applied personally--related to the teacher's own behavior, his own pupils, his own classroom.

Insight into principles of effective teaching comes about through personal inquiry.

Teachers should have opportunities to practice or try out techniques or procedures during the in-service program.

Emphasis should be placed on resources that enable teachers to implement the trial of new concepts and methods.

Teacher participation in the in-service program should be voluntary.

Teachers should have ample opportunity to evaluate the in-service training program.

In the Resource section a sample in-service program actually used in Missouri has been provided as well as an article describing another. Evaluate these two using the criteria suggested by Flanders, as well as any other criteria you feel are appropriate.

8.2.3.4.C (continued)

3. Mower, D.E. The skillshop for teacher in-service training. Educational Technology, April, 1972. Pp. 49-51.

4. Personnel
   Library - Resource People
   SECTraC Staff

5. MacIntyre, R.B. In-service training through short term conferences. Exceptional Children, January, 1972, 38, 412-415.

6. Frye, Roy A. Take-home workshops for in-service training." Audiovisual Instruction, May, 1963, 8, 314-315.

8.2.3.4.C

3. A position paper on how an in-service program should be.

It is obvious that the work of the first two assignments are necessary to prepare you for the third. Therefore, the projects from the first two need be only as extensive as you feel necessary for the third. Your advisor will be most interested in the position paper and most of your time and energy should be spent there.

Behavioral Objective *Continued:*

8.2.3.4.C (continued)

Then interview two people responsible for in-serivce education, i.e., the director of SEIMC or superintendent of instruction, to determine how their in-serivce programs are handled. Compare and contrast the actual practices with those you have read about.

Write a position paper, using authorities to reinforce your ideas, on how teachers should be taught in an in-service program. Submit the entire excercise to the SECTraC staff for discussion.

8.2.3.4.D

The curriculum consultant is not alone in working with in-serivce training; he needs the support, training, services, and knowledge of many people. This has been recognized by many people many times. However, the temptation remains to try and do everything alone. Chalmers, discussing audiovisual in-service training programs, described the interested personnel in the following diagram which appeared in the article, "Audiovisual Inservice Training."

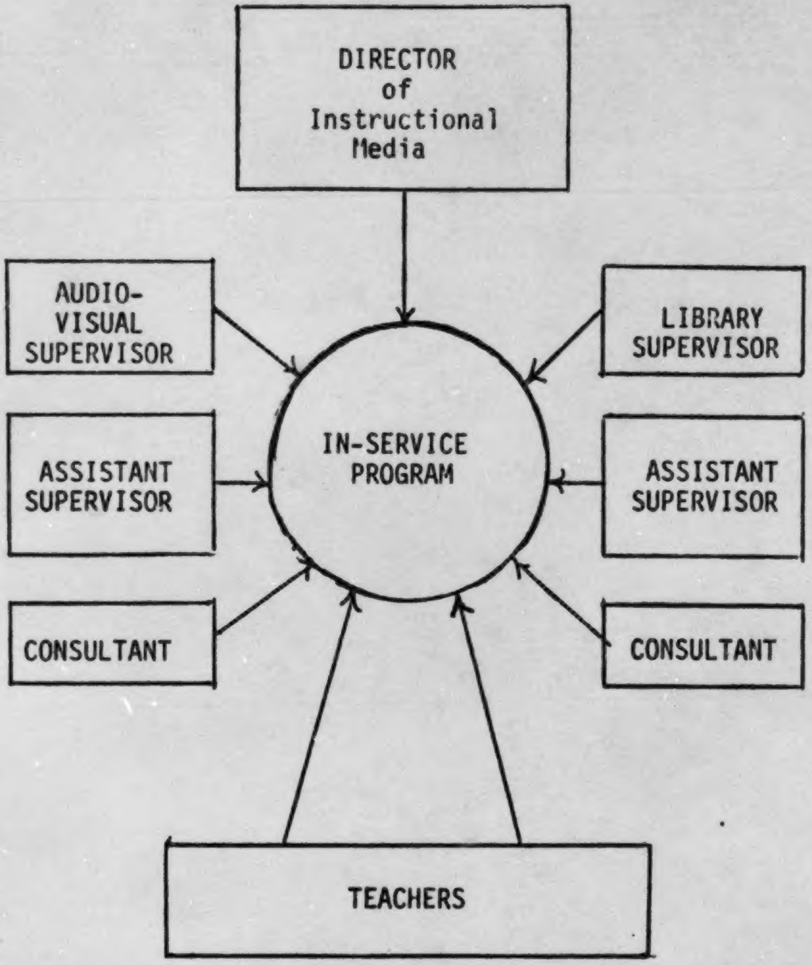


Figure 4. A representative organization showing how various personnel contribute to the In-service Program.

Behavioral Objective Continued:

8.2.3.4.D (continued)

You are to use this diagram in order to describe the role each person has in the total in-service program.

From your readings and esperience you should know that more people than those listed are available if in-service training is viewed in its broadest possible terms. Therefore, you are to redesign the model, including the people who could and/or should contribute to the teachers' on-the-job growth and competence. Remember that a Special Education teacher and Sepcial Education curriculum consultants live and work in a larger community than the school or school district.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.4 The trainee will be able to develop an in-service training program on instructional materials.

Activity No. — *Evaluation Criteria*

8.2.3.4.A

The trainee was given resources which discussed in-service input and emphasis options. From those the trainee was to list the advantages and disadvantages of each. An abbreviated example is included below:

Teacher survey approach:

Advantages	Disadvantages:
1. Most accurate way to discover and rank order, teacher-felt priorities	1. Time consuming
2. Involve teachers in the project early-more likely to get them to come to the meetings	2. Expensive
	3. May not hit all perceived needs
	4. May not be expertize or materi available to meet expressed needs

Administration determined approach:

Advantages	Disadvantages:
1. Can be based on a study of system-wide deficits and strenths	1. May miss what the teachers wan and need to learn
2. Can assure availability of materials and expertize	2. May alienate or leave teachers uninvolved they may not atter
3. Can retain control of costs	

Combination approach:

The administration official can make a master list of possible topics. Selection can be based on availability of expertise and materials, cost effectiveness, time available, and teacher-perceive needs in the past. This list can be rank ordered by teachers--either as a system --with questionnaire, or a small sampling depend on the size of the system. From these results topics can be select and developed for presentation.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.4 The trainee will be able to develop an in-service training program on instructional materials.

Activity No. *Evaluation Criteria*

8.2.3.4.A (continued)

Secondly, the trainee was to select one approach or a combination of approachs for use with Special Education of the School District of their choice and prepare a defense for choosing it. An example is included below:

> The combination approach, merges the advantages of the other two well. In this way, only workshops which are feasible would be selected, and out of this possible listing the teachers would choose the one best suited to their needs. The disadvantages of the teacher survey--time and money--could be reduced by a sampling procedure or by submitting the list to a selected committee of teachers. Upon approval and selection, these teachers could then **advertise** the workshop to the other teachers in their school area, so that involvement would not be lost.

8.2.3.4.B

The trainee was given several resources providing examples of formal and informal in-service training. Using these resources and any other's the trainee may find, the trainee was to develop a list of in-service training possibilities. Some possible responses are listed below:

1. Make video-tapes of important speeches and presentations at workshops, conventions, meetings, etc.
2. Make video-tapes of creative teaching in action. Film classrooms in and out of your system and build workshops around them.i.e.; demonstrations of stations approach, learning centers, behavior modification plans, etc.
3. "Doing" sessions-let the teachers make or use products they can use in the classroom, i.e., play a variety of classroom games; make instructional materials; do science and art projects,etc. Involvement is more effective than just talking about it.
4. Have a "Bring one-Share one" session. Within specified guidelines, have teachers bring something which has been valuable to them and share it with others. This can include slides, transparencies, resource books, a game, etc.
5. Teachers can take field-trips, too. Field trips can include tours of IMC facilities, little used media production centers, other schools and previews of industry field trips that they can then take their classes through.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.4 The trainee will be able to develop an in-service training program on instructional materials.

Activity No.

8.2.3.4.B (continued)

Evaluation Criteria

6. Present problems and "new" solutions then have the teachers try it for a week on two and report back for an evaluation session. This would work well with a workshop on behavior modification, prescriptive teaching, stations, etc.
7. Conduct a "Bitch" session and try to find workable solutions—then follow through. This can cover classroom problems to building management and general administration problems.
8. Videotape
    a. multiplies specialists time making his contribution permanently available.
    b. records accurately situations that are later to be reviewed.
    c. provides accurate objective information comparison under identical situations of different methods or materials on actual use.
    d. brings together many people who have bearing on problems or many different problems.
9. Present material to teachers as a group (e.g.all primary EMR) or individual teachers.
10. Teachers bring material with them, exchange information, discuss demonstrate, get professional help.
11. Workshops that preview new audio-visual materials, disseminate information concerning material to teacher, make recommendations (teachers keep catalogue).
12. Tape workshop-teachers develop tapes to be used in instruction.
13. Actual experiences with equipment (also include aides, parent assistants).
14. Use media to teach media.
15. Field trips -(e.g. tours of facilities)
16. Demonstration lessons
17. Teachers have opportunity to try out techniques during the session.
18. Act out dramatic roles.
19. Programmed in-service.
20. Workshops-purpose-productive work in contrast to listening to lectures (eg.teachers develop materials)
21. Short course-not as involved as workshop, specific in appeal to interested people

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.4 The trainee will be able to develop an in-service training program on instructional materials.

Activity No.	*Evaluation Criteria*
8.2.3.4.C	This activity requires the trainee to complete several steps in order to satisfy the activity.

1. Utilizing given resources and references the trainee was to evaluate an actual in-service program. There may or may not be a written response to this activity as the quality of effort exerted by the trainee will be reflected in the final activity.
2. The trainee was to interview 2 people responsible for in-service education to compare and contrast actual practices with those included in the literature. Again, there may or may not be a written response.
3. The trainee was to culminate this activity by writing a position paper on how teachers should be taught within the realm of in-service education. Some ideas which could possibly be included in the paper are presented below.

   In-service training should be a problem solving process that explores new ways of teaching and especially new ways of helping teachers control their behavior for professional purposes.

   The first step in planning an in-service session is discovering the needs of the teachers in reaching new levels of competence which, if developed, will produce the desired changes. This specification of exact material to be presented should be stated in terms of behavioral objectives with evaluation implied The director, with perhaps the aid of the steering committee, will select the procedures and techniques to achieve these goals During this selection, he must bear in mind that active learning that provides for tasks to be performed by the participants and not passive learning changes behavior. Print media which is best for sample information giving will be distributed prior to the session. Small groups will be the major learning setting. Within the group, teachers will have the opportunity to practice new techniques or procedures prior to application within their own classroom. Feedback, essential to the continued success of in-service, is a two way process. An evaluation record of the teachers' progress will be kept and made available to the teachers at the close of the season conference. A follow-up to determine whether changes in behavior have produced more

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.4 The trainee will be able to develop an in-service training program on instructional materials.

Activity No. *Evaluation Criteria*

8.2.3.4.C (continued)

effective classroom teaching should be done if possible. The teachers, too, will evaluate the session and also list any topics they would like to see discussed. The director would encourage them to take home a copy of their work (a good motivator). Throughout the session, the director will demonstrate concern for the individuals involved by having all materials ready and available, by beginning on time, by providing periods of relaxation. The success of an in-service program rests upon each member, director and participant, fulfilling his commitments. Hopefully in-service training will be a part of teacher responsibility, regularly scheduled each week. Participation is voluntary.

8.2.3.4.D

The trainee was given a diagram representing how various personnel contribute to in-service programs. Using this diagram the trainee was to describe the role each person assumes in a total in-service program. Sample responses are included below:

Audio-visual supervisor-provides instruction in the utilization, production, evaluation, and distribution of media and materials.
Assistant supervisor-because of the enormity of the task of the audio-visual supervisor, he requires an assistant to handle various areas within his field.
Consultant-expert in his field (whether audio-visual,library or others), will provide specialized knowledge--usually not from within the school system but is invited to participate in the in-service as an actual member or in the planning session or both.
Library supervisor-identifies, selects,evaluates,catalogues materials, plans resource centers, constructs materials (if workshop available), disseminates information, offers in-service programs.
Assistant supervisor-similar to audio-visual assistant.
Director-

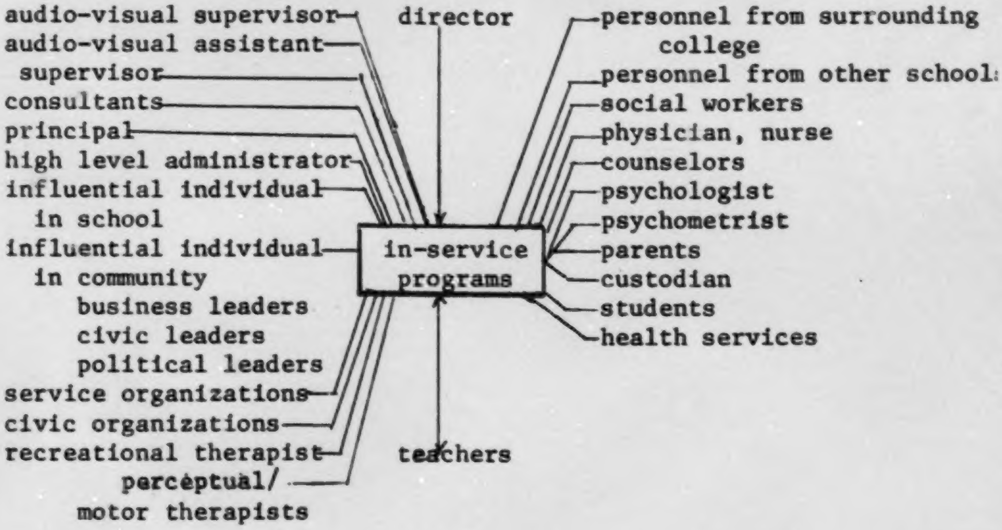
- a. discovers needs of teachers in reaching new levels of competence which if developed will produce the desired changes.
- b. identifies problem solving activities for use with assembled teachers.

Competency Component: 8.2.3 To assist the trainee in developing procedures which would promote the use of instructional materials.

Behavioral Objective: 8.2.3.4 The trainee will be able to develop an in-service training program on instructional materials.

Activity No.	*Evaluation Criteria*
8.2.3.4.D (continued)	c. organizes groups for action d. guides work e. evaluates results f. procures and presents guides, materials g. a leader but also part of the group Teachers- a. indicates needs and skills they should have b. active participation in in-service c. evaluates in-service programs d. undergo learning producing changes in behavior

Secondly, the trainee was to redesign the model to show additional personnel that are also available in addition to those included on the original model. One possible response is shown below:



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Special Project
PROTOTYPE TRAINING PROGRAM FOR THE PREPARATION OF CURRICULUM CONSULTANTS FOR EXCEPTIONAL CHILDREN

INSTRUCTOR'S MANUAL

for

Module 8.0 Developing / Materials and Media

Competency 8.3 The curriculum consultant should be capable of providing direction in the establishment or revision of a local resource center.

May 1974

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Department of Health, Education, and Welfare

U.S. Office of Education
Bureau of Education for the Handicapped
Division of Training

EC/23/43

Project Staff

Edward L. Meyen, Project Director
Reuben Altman, Co-Director

University of Missouri-Columbia

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I. Interim Report: Competency Research Phase
II. Interim Report: Module Specification Phase
III. Interim Report: Dissemination Phase

INSTRUCTOR'S MANUAL

MODULE # 8: Developing / Materials and Media

MODULE ELEMENT SCOPE:

A local resource center, properly functioning, is an important asset in the development and use of teacher-made instructional materials and media. Therefore, you, as a curriculum consultant, should know what an ideal resource center can do, and should be able to evaluate an existing center. In addition, if a revision is necessary in an existing center or a new center is to be established, you should know the resources which you can manipulate, and the skills and procedures you can employ to produce effective and efficient change. The activities in this module element combine both the theoretical and the practical. As much as possible they provide you with experiences, situations, and decision making opportunities along with the necessary information and knowledge to guide and direct your responses.

MODULE ELEMENT SPECIFICATIONS:

Competency 8.3 The curriculum consultant should be capable of providing direction in the establishment or revision of a local resource center.

Competency Components:

8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

8.3.2 To assist the trainee in identifying the effect altering any one resource (personnel, financial, organizational, temporal) has on the scope of a local resource center.

8.3.3 To assist the trainee in determining the actual services provided by a local resource center.

8.3.4 To assist the trainee in developing evaluation techniques to determine how effective a local resource center is in meeting the needs of its service area.

8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Conference Record

Trainee's Name

Phone

Address

Other Modules in Progress

Date:

Reason:

Conference Record (continued)

Date: ____________ Reason: ____

Pre-Assessment Performance	Activity Performance	Post-Assessment Performance	BEHAVIORAL OBJECTIVES TO BE ACHIEVED IN THIS MODULE ELEMENT	Cross-Reference
			8.3.1.1 The trainee shall be able to identify and describe the role and scope of personnel in the establishment or revision of a local resource center.	
			8.3.1.2 The trainee shall be able to identify the role of finance in the establishment or revision of a local resource center.	
			8.3.1.3 The trainee shall be able to identify organizational patterns which effect the scope of a local resource center.	
			8.3.1.4 The trainee shall be able to establish the importance of time in determining the scope of a local resource center.	
			8.3.2.1 The trainee shall be able to manipulate a single resource (personnel, financial, organizational, temporal) to effect change in a local resource center.	
			8.3.2.2 The trainee shall be able to manipulate one or more resources to effect change in the relationship between resources within the resource center and the total scope of the center.	
			8.3.3.1 The trainee shall be able to list at least four means of obtaining data to determine the services performed by a local resource center.	
			8.3.3.2 The trainee shall be able to employ data gathering techniques to obtain necessary information on the services provided by a resource center.	
			8.3.4.1 The trainee shall be able to evaluate the appropriateness of data gathering techniques when given the task of assessing the effectiveness of a local resource center in meeting the needs of its service area.	

Pre-Assessment Performance	Activity Performance	Post-Assessment Performance	BEHAVIORAL OBJECTIVES TO BE ACHIEVED IN THIS MODULE ELEMENT (continued)	Cross-Reference
			8.3.4.2 The trainee shall be able to use appropriate data to form evaluative judgments.	
			8.3.5.1 The trainee shall be able to prepare original communications which convey factual information.	
			8.3.5.2 The trainee shall be able to prepare and deliver effective persuasive communications.	
			8.3.6.1 The trainee shall be able to analyze situations to determine what elements would be involved when producing effective change.	
			8.3.6.2 The trainee shall be able to describe at least five different systems which could be helpful to the curriculum consultant when establishing or revising a local resource center.	
			8.3.6.3 The trainee shall be able to define and discuss PERT and list several applications for the technique in education.	
			8.3.6.4 The trainee shall be able to define and discuss PPBS as a means of effecting change.	
			8.3.6.5 The trainee shall be able to apply PERT, or another technique of his choice, to the task of establishing a local resource center.	

Upon successfully demonstrating competence in a behavioral objective (through pre-assessment performance, enabling activity performance, or post-assessment performance), have a SECTraC staff member initial the appropriate bos. When a behavioral objective is cross-referenced to other Module Elements, be sure to have it initialed there simultaneously.

Resource File

The following activities have resource files. Each file contains material essential to the activity. Articles and reference materials have not been placed in resource files. Reference materials may later be duplicated and put into resource files in order to make the modules more complete as instructional packages.

8.3.1.1.B
8.3.1.1.C
8.3.1.2.A
8.3.1.2.B(1)
8.3.1.2.B(2)
8.3.1.2.D
8.3.1.2.D
8.3.1.3.B
8.3.1.3.C
8.3.1.3.D
8.3.2.1.D
8.3.3.2.A
8.3.5.1.A
8.3.5.1.B
8.3.5.1.C
8.3.6.1.A(1)
8.3.6.1.A(2)
8.3.6.2.A
8.3.6.4.A
8.3.6.4.B
8.3.6.5.A

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objectives:

8.3.1.1 The trainee shall be able to identify and describe the role and scope of personnel in the establishment or revision of a local resource center.

8.3.1.2 The trainee shall be able to identify the role of finance in the establishment or revision of a local resource center.

8.3.1.3 The trainee shall be able to identify organizational patterns which affect the scope of a local resource center.

8.3.1.4 The trainee shall be able to establish the importance of time in determining the scope of a local resource center.

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.1 The trainee shall be able to identify and describe the role and scope of personnel in the establishment or revision of a local resource center.

Enabling Activities	*Resources*	*Comments*
8.3.1.1.A Most local resource centers have in common the resources from which they draw; they are all financed in some way, they employ some organizational patterns, they operate within the limits of time and space, and they need personnel to perfomr services. Local resource centers, to meet the needs and specifications of the Special Education Instructional Materials Centers Network, share a set of common objectives. These are listed for you in the resource section. Additional resources on the Special Education Instructional Materials Network is profided in Resource File 8.3.1.1.A REview this material before proceeding further in this activity. Trained prefessional personnel are necessary to meet each of the objectives listed in the resource column. While most centers share the same common objectives they must employ people to translate theory into practice. In the translation each center develops a character of its own. You can provide strong direction in the	8.3.1.1.A 1. Objectives of Resource Centers: 1. To provide for storage and retriveal of both print and non-print materials for use by teachers. 2. To provide for search and retrieval, and thus fulfill a consultive function. 3. To provide not only lists and catalogues of available materials but also evaluations of such materials. 4. To provide a consultive staff to help teachers with their personal evaluation of materials. 5. To provide resource people who are capable of going beyond the local center to conduct workshops, in-service training, and conferences in the school and classroom. 6. To provide materials, guidance, and encouragement for the production of local materials. 2. Resource File 8.3.1.1.A	

8.3.1.1.A (continued)

development of a local resource center if you realize the impact personnel can and will have upon the functions and services performed within the local resource center. It is therefore, important that you understand the consequences alternative roles assumed by personnel within a resource center can produce. At least three things strongly influence the role and scope of the personnel in a local resource center.

1. What duties and activities the professional personnel believe they perform.
2. What duties and activities the professional personnel actually perform.
3. What duties and activities professional personnel think they should perform.

Complete the following activities for these professional staff people: a librarian, and a media specialist:*

1. Visit a source center and/or other appropriate facilities and interview the personnel to determine (1) their perception of their job, of what they actually do, and (2) their perception of what their job should be. You may tape these interviews for future reference.

8.3.1.1.A (continued)

3. Libraries and resource centers
4. Librarian(s)
5. Media specialist(s)
6. Tape recorder

8.3.1.1.A (continued)

*The term media specialist is used here as it is the term used in Standards for School Media Programs, prepared by the America Library Association and the AECT. Similar terms--director of media, and Learning Resource Director--all imply an individual who has borad professional training in education, library, and instructional meida. The term media technician refers to staff who may or may not have teacher certification, is not responsible for instructional decisions, but who has special competencies in the instructional media field

Behavioral Objective ***Continued:***

8.3.1.1.A (continued)

2. Visit the same facility as an observer and record the activities and duties you see the personnel perform until you feel you have a relatively accurate assessment of what each really does.

3. Use the information you have to compare and contrats, in a written report, the description of the job as given by the staff person, the job as performed, and the job which each thinks should be performed for each professional person recorded. Then show any comparisons and contrasts you can between the personnel (librarian and media specialist) interviewed and observed.

8.3.1.1.B

The materials listed and collected in Resource File 8.3.1.1.B(1) present conflicting views on the role and scope of the media specialist, the librarian and the media technician. Evaluate the positions, in a short report, and support your judgement by reinforcing references of your own. Some additional references are already included in Resource File 8.3.1.1.B(2) and in the resource section.

You may agree or disagree with any source offered, and you may arrive at any conclusion, as long as you are resonable and your position is adequately supported.

8.3.1.1.B

1. Resource File 8.3.1.1.B(1)

Educational Technology Cassette Tape, "The Librarian and the Learning Resource Director: Future Roles, Problems, and Issues," Discussion.

Tanzman, J. What You Need to Build an Instructional Materials Center, School Management, January, 1968, 15, p.2.

"What Your District Can Do About School Libraries," School Management, April 1964, 8, 100-102.

8.3.1.1.B

1. Resource File 8.3.1.1.B(1) (continued)

   Fehrle, Carl E., Coffey, J., Fehman, B. Fairgrieve, G. A Functional Learning Resource Center for an Elementary School. College of Education and University Extension Dividion UMC, January, 1971, pp. 13-16.

   McGuire, A.B. The school librarian: a new image. Educational Leadership, January , 1964, 21, pp. 227-230.

2. Resource File 8.3.1.1.B(2)

3. Other sources:

   Lewis, P. The role of the education communications specialist, American School Board Journal, December 1961, 182 (183), pp. 16-17.

   "Librarian, The." 16mm film available through University of Missouri Extension service.

8.3.1.1.C

Assume you are the curriculum consultant for special education in a medium-sized school district. The board of education has spent the past year developing a local resource center which will service all the teachers of the school district, including the special education teachers. In the developmental phase of establishing the center you

8.3.1.1.C

1. Resource File 8.3.1.1.C

Behavioral Objective *Continued:*

8.3.1.1.C (continued)

provided excellent leadership in determining the teachers' needs and requirements for the facility. The only thing left to do now is to hire the professional staff for the coming year. The total professional salary money available is $12,000—to be given to one person on an eleven month contract. You have been asked to help again by preparing a job description for the position; what would you write? After you have written your job descriptionm go to resource file 8.3.1.1.C.

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.1 The trainee shall be able to identify and describe the role and scope of personnel in the establishment or revision of a local resource center.

Activity No. — *Evaluation Criteria*

8.3.1.1.A

The trainee has been asked to visit a local resource center to determine the role and scope of the personnel within it. The trainee was to first interview a librarian and a media specialist in a resource center to determine 1) their perception of their job, that is, what they are actually doing at the present and 2) their perceptions of what their job should be. Secondly, the trainee was to observe closely in the same center and record the activities and duties actually being performed. Using the information obtained from the interviews and subsequent observation, the trainee was to prepare a written comparison/contrast of the description of the jobs, the jobs as performed and the job as it should be performed. One format the trainee may elect for recording this information is shown below.

Personnel	Perception of Job	Realities of Job	Ideals of Job

8.3.1.1.B

The trainee was presented with a variety of diverse views concerning the role and scope of the media specialist, librarian and media technician. Following an examination of each of these views the trainee was to evaluate the positions in a short written report. Almost any conclusions are to be accepted as long as they are adequately supported and represent a reasonable line of thought.

Some positions which may be reflected in the trainees comments are listed below. They do not represent correct or incorrect responses, simply possible positions which could be taken on this particular issue.

1. Libraries as they now exist will begin to be replaced by the Learning Resource Center concept.
2. Libraries, i.e. Learning Resource Centers will exert a greater attempt to make their services more accessible to more individuals.

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.1 The trainee shall be able to identify and describe the role and scope of personnel in the establishment or revision of a local resource center.

Activity No.	*Evaluation Criteria*
8.3.1.1.B (continued)	3. Educational technology will be used to motivate previously unmotivated students. 4. The personnel needed to maintain facilities as those described in 1-3 above wil need to have additional skills over those which librarians traditionally possess. Specifically they will need educational skills, that is knowledge of subject areas, correlated soft ware and hard ware. Secondly they will need an educational psychology background in terms of learning styles, preferred instructional modalities etc. Finally they still need all the skills traditionally associated with Library type facilities, i.e., cataloging, organizing for storage and retrieval, circulation, etc.
8.3.1.1.C	The trainee has been placed in the hypothetical position of hiring the professional staff for a newly established resource center. Prior to actually selecting a person the trainee was to write a job description for the position. The job description should contain, at a minimum, references to the following: 1. minimum age 2. educational background, taking in media, technology, education in library science, etc. 3. past field experiences, teaching, library work, etc. 4. list of duties to be performed by the new staff member 5. the theoretical operating position to be maintained by the center

Competency Component: **8.3.1** **To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.**

Behavioral Objective: **8.3.1.2** **The trainee shall be able to identify the role of finance in the establishment or revision of a local resource center.**

Enabling Activities	***Resources***	***Comments***
8.3.1.2.A It is obvious that either establishing a new local resource center or revising an existing center requires money. There must be financial support for a facility which demands equipment, materials, personnel, and space, creates a demand which, if successful, creates a demand for even greater service. This need for initial and continuing support necessitates two sets of choices and decisions: first, where is the money to come from, and second, where should it go (to physical facilities, equipment, staff, etc.)? It is on this decision making level that the curriculum consultant for Special Education can identify the role of finance and influence the allocation of funds for a local resource center. To be more specific, most school systems work from an existing budget, spend their money, and follow approximately the same budget the following year. Where is the money for a new resource center to come from when there was no money last year and these same expenses are anticipated for the next year?	**8.3.1.1.2.A** **Resource File 8.3.1.2.A**	

8.3.1.2.A (continued)

Many experts contend that school systems operate as they do, not out of choice, but because they see no alternatives, or options available. For example, the school board assumes that X number of dollars was spent in 1965 for X numbers of teachers and since the number of pupils has not increased, X number of dollars will again be spent in 1966 for teachers salaries. This becomes a sized item, with no alternatives. Yet many school, have gone to team teaching, teaching aides, fewer classroom teachers but more special teachers (science, P.E., reading), lecture classes and individualized instruction--all alternatives to the one teacher for 28 students mode.

Life and Fortune Magazines in 1967 published articles which described nine families with incomes of over $20,000 per year. It is interesting to note that no two families spend their money the same way. Each values different things (clothes, cars, savings), each apportions their money according to different philosophies (pay cash, buy now and pay later) and consequently each, on about the same income, live entirely different lives with entirely different life styles.

To stimulate your thinking and encourage your sensitivity, these articles are gathered together for you in Resource File 8.3.1.2.A. Read all the articles. Choose three families and submit them to the following treatments:

Behavioral Objective *Continued:*

8.3.1.2.A (continued)

1. Identify at least three major expenditures for each and try to determine why these are important to each.

2. Given the budgets and articles about your families, write a short paragraph which describes their personal philosophy.

3. Determine the impact of a 25% salary increase and a 25% salary decrease for each family--where would the changes be most obvious?

8.3.1.2.B

The purpose of Activity 8.3.1.2.A was to give you insight into the variations that can occur within a fixed income on the personal level. The Education Turnkey Systems, Inc., feel this same type of flexibility is possible within school systems if careful analysis is done, and new, creative solutions are considered.

The materials contained in Resource File 8.3.1.2.B and the selected readings in the Resource Section include suggestions for budgeting, a system of cost analysis, and an actual budget from the Columbia School District. Read these materials carefully so that you understand:

1. How to develop an AV budget.
2. Two methods of cost analysis (i.e., Columbia Budget, Turnkey System.)
3. The place of media-equipment, materials, personnel-in a school system.

8.3.1.2.B

1. Resource File 8.3.1.2.B which contains:

Cost of audio-visual instruction, school management, October, 1970, pp. 25-28.

Jordan, R. Clarifying an AV budget," audiovisual instruction, May, 1970, 15, pp. 69-71.

Education Turnkey Systems, Economics of third grade education. Audiovisual Budget - Columbia School District.

Erickson, C.W.H. Budgeting for media service programs, Administering Instruction Media Programs, MacMillan Co., New York, 1969, pp. 544-570.

Harmon, P. Curriculum cost-effectiveness evaluation, Audiovisual Instruction, January 1970, 15, pp. 24-26.

It might be fun to see if other trainees can recognize the famil: from this philosophy.

Behavioral Objective *Continued:*

8.3.1.2.B (continued)

Demonstrate your grasp of budgeting, as well as your ability to create new solutions to existing problems, by constructing three ways of resolving the following conflict:

> The teachers of the Johnson School District have demanded a local resource center for the next year which will provide professional literature, materials and equipment for teachers' use and evaluation and united production facilities. The School Board has refused on the grounds that the student population will remain at the same level, the five leaving teachers will have to be replaced, and no new or additional revenue is available to provide the new services demanded. Only the space is available. What would you suggest? You may establish any money figures you choose, although the budgets included in the Resource File may help you get started.

8.3.1.2.C

When planning for any educational program or improvement, the school tax base provides the major source of support. However, in addition to local and state appropriations, there are additional potential sources of revenue. The administrator should know and tap all potential sources of revenue; it is especially important that a curriculum consultant who represents the needs and interests of special children and their teachers be aware of what funding is available. This activity has two purposes—(1) it is designed to make you aware of the financial resources available to education, and (2) to provide you an opportunity to present what you know in an informative and interesting way. You are to develop a seminar presentation in which you identify:

1. All the possible sources of financial assistance for the establishment or revision of a local resource center which serves special education teachers.

8.3.1.2.C

Federal Aid: New Directions for Education in 1970-71. Washington, D.C.: National School Public Relations Association, 1970.

Brown, Lewis, Harcelroad. AV Instruction: Media and Methods. St. Louis: McGraw-Hill Book Company, 1969. Pp. 68-70.

Erickson, C. Administering Instructional Media Programs. New York: MacMillan, 1968. Pp. 570-581.

Lewis, E.A. USOE/Bureau of libraries and educational technology." Audiovisual Instruction, September, 1971, 15, 57-63.

Morse, W. The role of government in educational change. Audiovisual Instruction, October, 1965, 10, 616-617.

Program changes you should know about. school mangement, June, 1969, 13, 20-28.

McCann, W. Politics and the future of federal aid. School Management, June, 1969, 13, 33-40+.

8.3.1.2.C (continued)

2. The federal and state agencies and legislative acts which are potential sources of funding for a local resource center.
3. The relationship between federal funding and the state department of education.
4. The particular relevance of special education to federal and state funding.
5. The role of private institutions in the funding of local resource center.

The materials in the resource section will provide you with some basic initial information. You will want to supplement these readings with your own additional sources. Your final presentation should be taped and given, along with any materials used in the presentation (i.e., transparencies, charts, handouts), to your SECTraC advisor.

8.3.1.2.C (continued)

Peck, J. E. How much state support for local schools? School Mangement, August, 1972, 15, 11-14,52.

A Summary of Selected Legislation Relating to the Handicapped 1971, U.S. Department of Health, Education and Welfare. Washington, D.C., 1971.

Guide to OE-Administered Programs, Fiscal Year 1972." United States Office of Education. American Education, August, 1971, 7, 37-44.

Ottina, J.R. "Highlights of OE's 1972 Budget," American Education, August, 1971, 7, 36.

Martin, E. Jr.and others. P.L. 91-230 the elementary and secondary education act amendaments of 1969; title VI, the education of the handicapped child, exceptional children, September, 1970, 37, 53-56.

Friedman, B.D. and Dunbar, L.J. Grants Mangement in Education: Federal Impact on State Agencies. Public Administration Service: Chicago, 1971. Pp. iii-iv, 21-25, 56-61, 103-106.

Funderburk, E.C. The local-state-federal partnership in school finance as viewed by a local administrator," Local-State-Federal Partnership in School Finance. The Proceedings of the Ninth National Conference on School Finance. NEA, Washington, D.C., 1966. Pp. 54-59.

.3.1.2.D

The ability of the federal gov-
rnment to raise large sums of money
s well documented. The ability of
he local education agency to procure
ederal funds is less well publicized.
t is important that you know where,
hy and how to apply for federal
unds for your school district. There-
ore, go to Resource File 8.3.1.2.D(1).

8.3.1.2.C (continued)

Nyquist, E. B. The local-state-federal partnership in school finance as viewed by a state administrator, Local-State-Federal Partnership in School Finance. The Proceedings of the Ninth Nantional Conference on School Finance. NEA Washington, D.C., 1966. Pp. 60-68.

Karsh, N. The local-state-federal partnership as viewed by a federal administrator, Local-State-Federal Partnership in School Finance. NEA, Wachington, D.C., 1966. Pp. 69-75.

Garvue, R.J. Modern Public School Finance. MacMillan Co., New York: 1969. Pp. 151-167, 257-260, 261-272, 283-302.

Atkin, E.A. Federal, local and in-between, Association of Supervisors and Curriculum Developers Yearbook. 1971. Pp. 259-268.

Peck , J.E. Future davelopments in school finance. School Mangement, August, 1972, 16, 11-14,52.

8.3.1.2.D

Resource File 8.3.1.2.D(1)

Resource File 8.3.1.2.D(2)

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.2 The trainee shall be able to identify the role of finance in the establishment or revision of a local resource center.

Activity No. — *Evaluation Criteria*

8.3.1.2.A

The trainee was asked to read all the articles in Resource File 8.3.1.2.A and then to choose three families to whom the following treatments might be subjected:

1. Identify at least three major expenditures for each and try to determine why these are important.
2. Given the budgets and articles about the families, write a short paragraph which describes their personal philosophy.
3. Determine the impact of a 25% salary increase and a 25% salary decrease for each family-note the obvious changes.

Although the trainee responses will vary, he should have noted that:

1. With each family group we find differences regarding:
    a. recreation - little vs much
    b. clothing needs, taste
    c. housing
    d. nursery school
2. Even though the income is approximately the same, the spending habits differ in relation to their personal philosophy of the family.
3. Savings VS overspending, are the most obvious events that would occur do to a salary increase; lack of spending VS credit buying are perhaps obvious results of salary decrease.

8.3.1.2.B

The trainee was asked to read the selections in Resource File 8.3.1.2.B to gain an understanding of:

1. How to develop an AV budget.
2. Two methods of cost analysis.
3. The place of media-equipment, materials, and personnel in a school system.

To demonstrate his grasp of the budgeting concept and/or his ability to create new solutions to existing problems, the trainee was to construct three ways of resolving the conflict described within the activity.

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal)which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.2 The trainee shall be able to identify the role of finance in the establishment or revision of a local resource center.

Activity No. — *Evaluation Criteria*

8.3.1.2.B
(continued)

No doubt the responses here will vary necessitating individual evaluation; however, the trainee should have noted that at least two alternative exist for revenue-salaries and maintenance. The monies accrued from hiring 1st year teachers in the place of five veteran teachers will most likely provide a good beginning for the resource facility.

8.3.1.2.C

In this activity the trainee was asked to utilize the references in Resource File 8.3.1.2.C in addition to others to develop a seminar presentation in which he identifies:

1. All the possible sources of financial assistance for the establishment or revision of a local resource center which services special education teachers.

The following should be considered:

1. independent monies
   a. private grants
   b. donations
   c. sponsorships
2. school board funds
   a. local
   b. state
   c. federal
   d. professional organization
3. The federal and state agencies and legislative acts which are potential sources of funding for a local resource center.
   Examples:
   a. Federal (USOE)
      1. Bureau of libraries and educational technology
      2. Bureau for the education of the handicapped (BEH)
   b. State
      1. State Dept. of Education
      2. Bureau of Mental Health/Mental Retardation
   c. Legislative acts
      1. Grants to office of education administering programs of special education.
4. The relationship between federal funding and the state dept. of education
   a. Prior to Nixon administration, federal funds were disbursed directly to school district.
   b. Presently federal funds are allocated to the State dept. of education; the State disburses the federal funds.

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.2 The trainee shall be able to identify the role of finance in the establishment or revision of a local resource center.

Activity No.	*Evaluation Criteria*
8.3.1.2.C (continued)	5. The particular relevance of special education to federal and state funding. a. Federal monies allocated to the states carries with it a stipulation for a percentage that must represent special education. 6. The role of private institutions in the funding of local resource centers. a. utilize National Defense acts of 1957-62.
8.3.1.2.D	The trainee was asked to go to Resource File 8.3.1.2.D to obtain information pertinent to obtaining federal funds for his school district.

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.3 The trainee shall be able to identify organizational patterns which effect the scope of a local resource center.

Enabling Activities	*Resources*	*Comments*
8.3.1.3.A One of the most popular commercial statues of the 60's showed two figures in repose around a dishelved table with the caption, "Tomorrow we save to get organized!" The value of effective organization is widely recognized; it, like saving, is more often appreciated in the abstract than practiced in the real world. You should know the consequences of good, bad, or indifferent patterns of organization upon the role and scope of a local resource center. The resource section of this activity contains materials which suggest organizational patterns to encourage the use of instructional media. Use these to develop a list of organizational patterns which encourage(or discourage) teachers use of instructional materials, both commercial and teacher made.	8.3.1.3.A Resource File Taylor, K.I. How to plan and equip an instructional materials center. Nation's Schools, January, 1961, 67, 53-60. Erickson, C. Administering Instructional Media Programs. New York: MacMillan, 1968. Pp. 60-65, 226-250, 274-286. Either Brown, J.W., Norberg, K.D. Physical facilities for educational media. New York: McGraw-Hill, 1965. Pp. 34-71. Or Brown J.W., Lewis, R.B., Horcelroad, F.F. Learning resources and facilities. Audio Visual Instruction: Media and Methods, (3rd Edition). New York: McGraw-Hill Book Company, 1969. Pp. 49-85. Simmons, F. Instructional resource centers. American Library Association Bulletin, February, 1963, 62, 170-174.	Resource File 8.3.1.3.A contains a variety of materials of general inforamtion which touch on some aspects of organization. You might wish to look through these.

8.3.1.3.B

You cannot swim without water; you also cannot preview a film, produce a transparency, or record on a cassette without the necessary equipment and facilities. When you are involved in the establishment or revision of a local resource center you will need to analyze what services should be available in the center, and what facilities are necessary to provide them. The organization of the center will help determine the function.

A game to illustrate this principle has been developed for you. Play the "Who? What? Why?" game in Resource File 8.3.1.3.B.

8.3.1.3.C

Administrative personnel, for example curriculum consultants or media directors, must fit into the administrative chain of command somewhere. In providing direction in the establishment or revision of a local resource center you may help by placing the media director in the

8.3.1.3.A Resource File (continued)

Turk, B. Blueprint for media centers. Catholic School Journal, February, 1970, 70, p.11.

Rice, H. J. Required esources. Educational Screen and AV Guide, June, 1969, 48, p. 15.

8.3.1.3.B

Resource File 8.3.1.3.B

8.3.1.3.C (continued)

position where he functions best.

To ascertain where in the line of responsibility the media director would function least effectively, you will need to decide the main issues-whether or not the job is on a system-wide basis, whether or not he is close to policy-forming levels of action, whether or not he is close to curriculum leaders and other key personnel in promoting needed change, and on whether he has sufficient time and authority to deal with media service and development problems.

Assume, in each case, that all other factors are equal and indicate your job preference based upon the organization presented, explaining some strengths and weaknesses of each pattern.

8.3.1.3.D

A local resource center serving special education teachers does not work in a vacuum; it is part of a large organizational structure which supports it. Your task in this activity is to design an organizational chart which illustrates the status of the local resource center in relation to the Instructional Materials Center Network and other contributing agencies. The questions and meterials in Resource File 8.3.1.3.D will help guide your thinking.

8.3.1.3.D

Resource File 8.3.1.3.D

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.3 The trainee will be able to identify organizational patterns which effect the scope of a local resource center.

Activity No. — *Evaluation Criteria*

8.3.1.3.A

The trainee has been asked to develop a list of organizational patterns which encourage teacher use of instructional materials. Each list submitted will vary somewhat and therefore should be evaluated individually. However, some mention of the following elements should be inherent in each response.

1. Materials and equipment may be stored in either a centralized system or decentralized pattern.

    a. A centralized pattern dictates the storage of materials in one area requiring teachers to call, check on its existence, plan to have it delivered, etc. This plan is suggested only for special-use equipment which is not frequently used.
    b. A decentralized pattern places the materials and equipment in each building making them more accessible to teachers.

The most frequently used materials and equipment are decentralized to the point of placing them in each individual classroom. This pattern greatly encourages teacher utilization over the centralized pattern.

2. Within either a centralized or decentralized pattern there are primarily two methods for organizing the materials and equipment.

    a. The A.V Media Center Pattern makes a distinction between technical media, media materials, media equipment, and print materials. The former being stored in the A.V. Media Center, the latter by the of the library: Therefore, although the media center and library may work closely they still operate as two separate entities.

    b. The Instructional Media Center Pattern combines materials and A.V. equipment with printed materials, while at the same time assuming the responsibility for circulation. This pattern is preferable over the first as it makes the selection and utilization of materials an easier task, thus encouraging teacher use.

Competency Component: 8.3.1 To assist the trainee in identifying the resource (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.3 The trainee will be able to identify organizational patterns which effect the scope of a local resource center.

Activity No.	*Evaluation Criteria*
8.3.1.3.B	The trainee was directed to play the "Who? What? Why?" game. This requires the trainee to study a blue print of an IMC then list its functions and classify who does what and why. Each list submitted by the trainee can be compared with the descriptions included in the following pages.

A Centralized IMC as Described by the Facility

A cooperative effort of eighteen school districts forming one centralized Instructional Materials and Teacher Training Center. Access is provided to videotapes, films, equipment and training facilities; for example, all teachers are provided with a film catalogue listing over 4,000 prints. Any print is available upon request and is delivered to and picked up at the individual school. Although requests for films and projectors normally are submitted a week or more in advance of delivery, order can be filled more rapidly if necessary.

A library of curriculum guides is in the IMC along with curriculum improvement materials of modern programs.

Book selection committees from the various districts often meet at the IMC to study and make decisions. Teachers also attend the IMC to witness demonstration of overhead and slide projection, automatic and standard motion picture projectors, and a variety of teaching machines. Later, they are taught to operate this equipment.

For those interested in independent study techniques, study carrels are available. Each is equipped with one or more learning devices such as teaching machines, programmed texts, tape recorders, film strip viewers, etc.

Four full-time artist-technicians provide teachers with a variety of visual aids upon request. The IMC has a well equipped darkroom and graphic arts studio for this purpose. Visual materials request forms are kept in each school and may be submitted as frequently as desired. Teachers requiring transparencies, slides, posters, charts or photos merely indicate what they need, describe it on the form, and include a rough sketch to convey their idea. Most orders are filled in less than two weeks after the request has been filed.

The center was organized with the belief that "teachers have neither the time, talent, nor patience to produce their own materials." To back up this claim, the center reports that in one three-month period, several thousand visual aids were sent to the 105 buildings. However, administrators do agree that if teacher demands become too great for the centralized facility, building IMCs should be developed to handle the more immediate teacher requests.

The IMC in Transition--A Self Appraisal

Several years ago this school system developed an IMC plan with an emphasis upon centralized control. Today they are in the process of decentralization and are rapidly moving toward a coordinated system of At present, the district IMC is operated by a director, who is assisted by three full-time clerks and an A-V technician. To maintain close contact between the schools and the district IMC, each elementary school has one resource teacher who serves as instructional materials coordinator. These "elementary resource teachers" are neither librarians nor audio-visual technicians, but are former classroom teachers specially selected because of their competence and familiarity with both book and non-book instructional materials. In the secondary schools, librarians fill this function. These coordinators meet monthly with the director to keep up-to-date on district instructional materials policies, utilization, both of materials and equipment, and new developments in the IMC.

At one time, the IMC book collection contained some 25,000 volumes. In the move toward decentralization, these books were distributed to the various elementary school libraries. Today, all books are processed in the centralized IMC, but none are retained there. Similarly, a collection of 20,000 study prints have been decentralized.

In the film library, which serves all schools, over 200 8mm educational films and 2,200 filmstrips are stored. Almost an equal number of films are rented from various sources during each school year. Daily deliveries are made, upon request, to any of the system's 500 teachers. To speed up processing, film rewind and inspection are accomplished by means of an electronic inspection. One clerk is in charge of packing and processing all films. There are also models and museum pieces available.

Each teacher receives an audiovisual catalogue which contains lists of all films, filmstrips, models and museum pieces available. New teachers are given information about the IMC as part of their initial orientation. To exemplify its philosophy, the IMC displays slogans such as "Set Up for Service to the Classroom Teacher" and "The Right Materials for the Right Child at the Right Time."

A Coordinated IMC--An Assessment

Although either centralized and/or decentralized IMCs can function efficiently and effectively, teachers usually consider ready accessibility to materials of primary importance. Reflecting this attitude recent surveys indicate a trend toward coordinated patterns of operations. This IMC is an outgrowth of this philosophy. Going from a library supervisor and an audiovisual supervisor, the school system developed a complex of coordinated instructional materials centers. The organization is based upon a single salient service.

To provide such service, each building is encouraged to operate its own IMC. However, a full blown County IMC functions to provide leadership, guidance and support to the building centers. This County Department of Instructional Materials is responsible for:

1. Assisting teachers in use of instructional materials and equipment in the instructional program;
2. Coordinating all library, auditory, visual, and related instructional materials and equipment services;
3. Developing, in cooperation with the Department of Supervision and Curriculum Development, systematic procedures for the review, evaluation, and selection of instructional materials;
4. Coordinating and administering the review evaluation and selection of textbooks, instructional materials, and instructional equipment;
5. Maintaining a telephone booking service and supplying instructional materials daily to all schools;
6. Maintaining a central processing center for all library books and other instructional materials;
7. Maintaining a library for the professional staff of the Montgomery County Public Schools;
8. Assisting in the development of basic library collections and other collections of instructional materials;
9. Assisting all departments in the development of standards and specifications for instructional materials and equipment;
10. Assisting the Department of School Facilities in planning new construction;
11. Reviewing instructional materials and equipment requisitions and purchase orders in cooperation with the Division of Procurement;
12. Coordinating all National Defense Education Act Title III projects in mathematics, science, foreign language, English, reading, history, civics, economics, and geography; Title II, Elementary and Secondary Education Act of 1965; and Section 12, Arts and Humanities Foundation act;
13. Producing selected instructional materials and providing graphic production--design, layout, photography, and typography;
14. Providing editing and reporduction services for all printed materials;
15. Coordinating all local television production services.

To speed up the process of distributing items maintained in the central inventory, daily inter-school truck delivery service is maintained. Color-coded catalogue cards (showing all materials available in the County IMC) are inter-filed in each building IMC card catalogue. Teachers are encouraged to give special requests to the IMC representative in their building, who then telephones the County IMC for immediate confirmation.

Many teachers, librarians and administrators have attended general workshops conducted by the Department of Instructional Materials. One such workshop was held in response to requests for "an opportunity to learn more about materials and how they can be used in instruction." In the work areas and dark rooms, under the direction of skilled staff members, teachers learned to prepare their own illustrations, transparencies and films.

Competency Component: 8.3 1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.3 The trainee will be able to identify organizational patterns which effect the scope of a local resource center.

Activity No.	*Evaluation Criteria*
8.3.1.3.C	The trainee was given three charts, each illustrating two different generalized patterns of organization, concerning the role of the media director. The trainee was to place himself in the position of pursuing a job in each of the given situations. After reviewing each, he was to select the pattern which would be his job preference, explaining some of the strengths and weaknesses in each. Each chart with some anticipated responses are shown on the following pages.

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

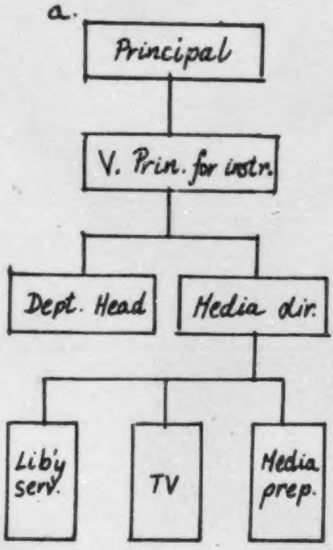
Behavioral Objective: 8.3.1.3 The trainee will be able to identify organizational patterns which effect the scope of a local resource center.

Activity No.

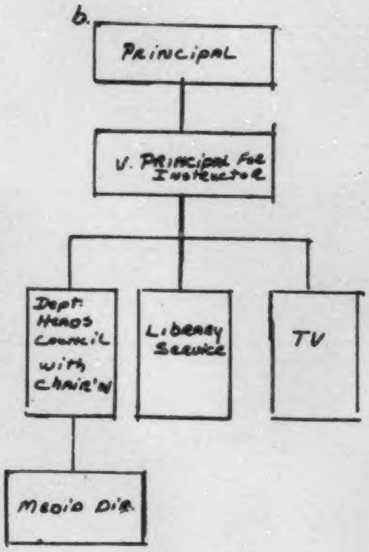
8.3.1.3.C
(continued)

Evaluation Criteria

a.



b.



School Building Situation

Chart a. represents the position which would offer the greatest opportunities to make decisions , effect change, and operate in a leadership capacity.

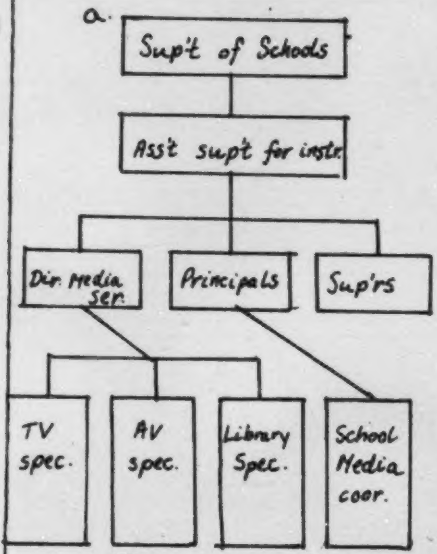
Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

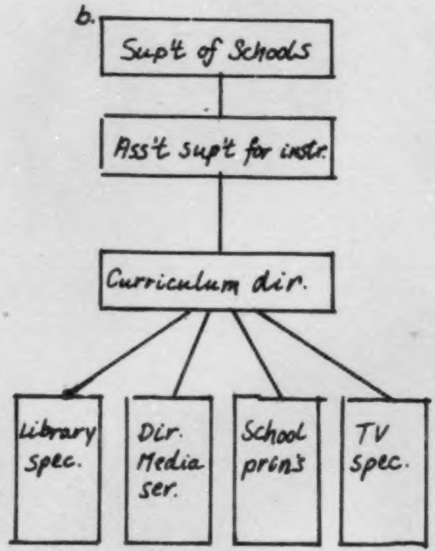
Behavioral Objective: 8.3.1.3 The trainee will be able to identify organizational patterns which effect the scope of a local resource center.

Activity No.

8.3.1.3.C
(continued)

Evaluation Criteria





School District Situation

Again choice a.would give the Media Director the greatest opportunities for molding and developing programs.

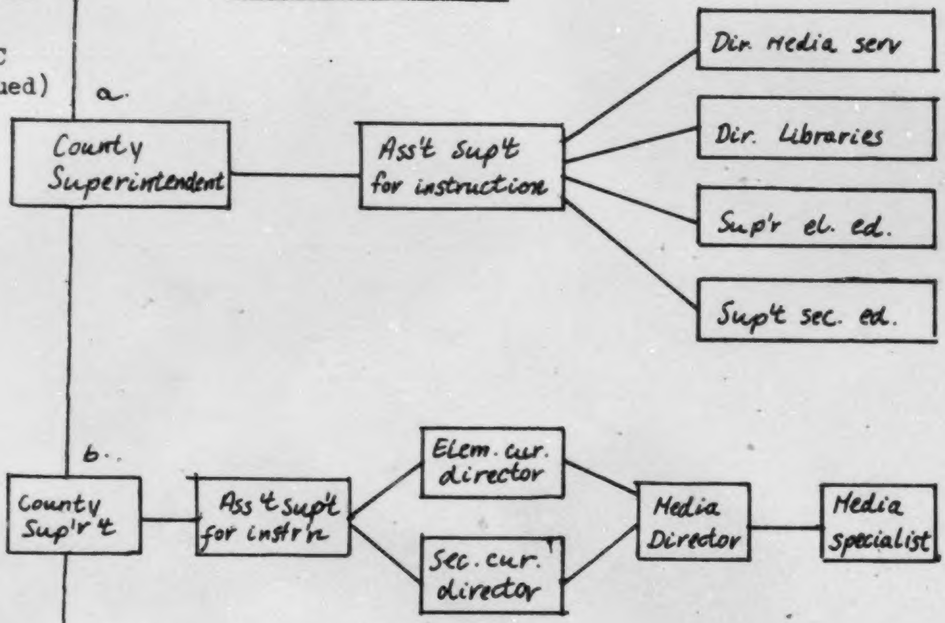
Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.3 The trainee will be able to identify organizational patterns which effect the scope of a local resource center.

Activity No.

8.3.1.3.C
(continued)

Evaluation Criteria



County School Situation

Choice a. again offers more opportunities to operate a leadership capacity by placing the Media Director on a level equal to the other Directors and Superintendents.

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.4 The trainee shall be able to identify the role of finance in the establishment or revision of a local resource center.

Enabling Activities	*Resources*	*Comments*
8.3.1.4.A How much can be done, and how well it can be done, in the establishment or revision of a local resource center, will depend upon a number of variables; one of the determining factors is the amount of time available for the planning and implementation of change. Assume you are the curriculum consultant in school district "X"; you have been told that the school board has, unexpectedly, given high priority to establishing a local resource center and has made funds available if the center can be ready by the opening of the following school year. A list of priorities is contained the Resource File 8.3.1.4.A. You are to describe what could be accomplished, and how it could be accomplished, if this announcement was made twelve months prior to the opening date, six months prior to the opening date, and three months prior to the opening date.	8.3.1.4.A Resource File Priorities: 1. Develop a statement of the goals of the prospective center. 2. Develop a budget to determine the allocation of funds in the establishment and maintenance of the proposed center. 3. Design the organizational layout of the proposed center. 4. Contract for necessary remodeling work. 5. Inventory existing supplies, equipment, materials. 6. Order necessary instructional equipment. 7. Order necessary instructional supplies. 8. Order necessary instructional materials. 9. Order necessary equipment and supplies for the proposed center.	8.3.1.4.A An example might be: Priority 6: Order necessary instructional equipment. 12 months 1. Review literature, i.e., Standards for School Media Programs, to ascertain basic professional recommendations. 2. Appoint a committee of interested teachers to gain their suggestions and recommendations. 3. Prepare a list of necessary equipment from recommendations of 1 and 2; incorporate all necessary specifications. 4. Put equipment list up for bids from interested suppliers. 5. Order equipment from best bid returns. 6 months 1. Review literature. 2. Appoint committee. 3. Draw up list of equipment and

Behavioral Objective *Continued:*

8.3.1.4.A (continued)

10. Establish personnel requirements.

11. Contract necessary personnel.

12. Inform professional staff of progress.

8.3.1.4.A (continued)

specifications

4. Order equipment from known reputable dealer.

3 months

1. Review literature.
2. Ask selected media users.
3. Prepare an equipment list.
4. Order equipment.

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.4 The trainee will be able to establish the importance of time in determining the scope of a local resource center.

Activity No.	*Evaluation Criteria*
8.3.1.4.A	The trainee has been asked to review a list of priorities to be considered when establishing a local resource center. For each of these priorities the trainee was to describe what could be accomplished and how if work was begun 12 months, 6 months or 3 months prior to the opening day.

An abbreviated example might be:

Priority No. 6 Order necessary instructional equipment.

12 months notification	6 months notification	3 months notification
1. Review literature to ascertain basic professional recommendations.	1. Review literature.	1. Review literature.
2. Appoint a committee of interested teachers to gain their suggestions and recommendations.	2. Appoint a committee.	2. Inquire among selected media users.
3. Prepare a list of necessary equipment from recommendations assembled during literature review.	3. Draw up a list of equipment and specifications.	3. Prepare an equipment list.

Competency Component: 8.3.1 To assist the trainee in identifying the resources (personnel, financial, organizational, temporal) which dictate the scope of a local resource center.

Behavioral Objective: 8.3.1.4 The trainee will be able to establish the importance of time in determining the scope of a local resource center.

Activity No.

8.3.1.4.A (continued)

Evaluation Criteria

Priority No. 6 Order necessary instructional equipment. (continued)

12 months notification	6 months notification	3 months notification
4. Put equipment list up for bids from interested suppliers 5. Order equipment from best bid returns.	4. Order equipment from known reputable dealers.	4. Order equipment.

This format is to be completed for each of the following priority statements:

1. Develop a statement of the goals for the prospective center.
2. Develop a budget to determine the allocation of funds in the establishment and maintenance of the proposed center.
3. Design the organizational layout of the proposed center
4. Contract for necessary remodeling work.
5. Inventory existing supplies, equipment and materials.
6. Order necessary instructional equipment.
7. Order necessary instructional supplies.
8. Order necessary instructional materials.
9. Order necessary equipment and supplies for the proposed center.
10. Establish personnel requirements.
11. Contract with personnel.
12. Inform professional staff of progress.

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.3.2 To assist the trainee in identifying the effect altering any one resource (personnel, financial, organizational, temporal) has on the scope of a local resource center.

Behavioral Objectives:

8.3.2.1 The trainee shall be able to manipulate a single resource (personnel, financial, organizational, temporal) to effect change in a local resource center.

8.3.2.2 The trainee shall be able to manipulate one or more resources to effect change in the relationship between resources within the resource center and the total scope of the center.

Competency Component: 8.3.2 To assist the trainee in identifying the effect altering any one resource (personnel, financial, organizational, temporal) has on the scope of a local resource center.

Behavioral Objective: 8.3.2.1 The trainee shall be able to manipulate a single resource (personnel, financial, organizational, temporal) to effect change in a local resource center.

Enabling Activities	*Resources*	*Comments*
8.3.2.1 Dramatic changes can be produced by altering only one element in a total situation; one car can snare traffic for miles, one red skirt may turn a wash pink, and a one degree drop in temperature may cause water to freeze. If you are sensitive to the potential for creating change, you need not wait for large or major policy shifts to alter the status quo. In your work with resource centers, you can produce significant changes by altering only one resource.		
8.3.2.1.A The resource file for this activity contains several situations which pose problems for you to solve. Your answers should be brief, but should show an awareness of the impact a change in a single resource could have upon the total resource center.	8.3.2.1.A Resource File 8.3.2.1.A	8.3.2.1.A Your answer may take the form of a written report, a taped discussion, or any presentation mode you choose, using any medium you select.
8.3.2.1.B Take any one of the situations described in Resource File 8.3.2.1.A and develop it. For example, in situation #1 you might wish to design and organize the new space for	8.3.2.1.B Resource File 8.3.2.1.A	

Behavioral Objective *Continued:*

8.3.2.1.B (continued)

maximum efficiency, and relate the organization and space to the anticipated outcomes.

Competency Component: 8.3.2 To assist the trainee in identifying the effect altering any one resource (personnel, financial, organizational, temporal) has on the scope of a local resource center.

Behavioral Objective: 8.3.2.1 The trainee shall be able to manipulate a single resource (personnel, financial, organizational, temporal) to effect change in a local resource center.

Activity No.

8.3.2.1.A

Evaluation Criteria

The trainee was given four situations describing change or problems which have an impact on a resource center. For each situation, a problem was posed. It was the trainee's responsibility to react to the problem.

Situation I: describes the movement of a resource room from a crowded, noncentrally located room to a large, spacious area with laboratory facilities. Large quantities of shelving, storage cabinets, file cabinets, tables, desk, chairs and help are available. The trainee's task was to hypothesize on the effect these changes might have on the scope, organization and use of the resource center. The trainee's response should reflect consideration for the following variables:

1. additional use
2. more services
3. easier use, retrieval and storage
4. greater awareness of materials available

Situation II: describe a school with $12,000 allocated for staffing the schools resource center. Several different personnel are available, each making different demands on the available monies. Of four given options the trainee was to predict the effect that the selection could make in the scope, operation and use of the resource center.

In each response should be some discussion of the possible restrictions or limitations a specific type of person might impose along with some discussion of advantages and assets. In other words, to be complete the pros and cons of each of the four options should be treated.

Situation III: describes expenditures for media equipment in two schools of comparable size. One has a total annual budget of $96,286, while the other has $12,365. The problem for the trainee is to predict what affect an increase in the budget from $12,365 to 20,000 will have for the second school. Included in the response should be a consideration of the following variables.

Competency Component: 8.3.2 To assist the trainee in identifying the effect altering any one resource (personnel, financial, organizational, temporal) has on the scope of a local resource center.

Behavioral Objective: 8.3.2.1 The trainee shall be able to manipulate a single resource (personnel, financial, organizational, temporal) to effect change in a local resource center.

Activity No.	*Evaluation Criteria*
8.3.2.1.A (continued)	a. types of additional services which could be rendered in terms of personnel b. additional equipment and supplies which could be acquired c. effect of increase on teacher attitude and use Situation IV: describes a school in which the resource center is open only before and after school. The trainee is to hypothesize the effect of the resource center being open during regular school hours. Included in the response should be a treatment of the following variables. 1. increased use 2. convenience 3. a rationale for making the prediction
8.3.2.1.B	The trainee was to select any one of the four situations described in activity 8.3.2.1.A and completely develop it. For example, situation one, which describes the movement from a small cramped facility into a large spacious facility might be developed by completing a detailed floor plan of the new facility. In addition a list of the types of materials may be included along with any other details the trainee decides to treat.

Competency Component: 8.3.2 To assist the trainee in identifying the effect altering any one resource (personnel, financial, organizational, temporal) has on the scope of a local resource center.

Behavioral Objective: 8.3.2.2 The trainee shall be able to manipulate one or more resources to effect change in the relationship between resources within the resource center and the total scope of the center.

Enabling Activities	*Resources*	*Comments*
.3.2.2.A In the activities in 8.3.2.1 ou worked with each of the resources financial, organizational, temporal, ersonnel) separately, assuming only he existence of the others as they erviced the one (i.e., the media echnician had to work somewhere and e paid somehow). Actually, each esource works closely with the thers and an alteration of one generally affects the others. Go to the Special Education nstructional Materials Center, UMC, r a similar facility of your own hoosing, and in a written report escribe the resources (finance, personnel, organization, time), and heir relationship to each other and he center's total scope as you ssess them. Give this report to he director for verification. Upon roducing a mutually (to you and the irector) satisfactory description f the center, alter one of the resources and forecast its probable ffect on the others (for example, ncrease the budget by $8,000, the	8.3.2.2.A Resource Center Director of Resource Center	8.3.2.2.A In visiting the center make sure you use all the records available to you. In addition, a conference-interview with the Director would probably be very helpful.

8.3.2.2.A (continued)

money to be spent in any appropriate manner; or, increase the staff by one half-time media technician, with no increase in budget). Make sure you assess the effect of the change you make on the other resources and on the total scope of the center.

Competency Component: 8.3.2 To assist the trainee in identifying the effect altering any one resource (personnel, financial, organizational, temporal) has on the scope of the local resource center.

Behavioral Objective: 8.3.2.2 The trainee will be able to manipulate one or more resources to effect change in the relationship between resources within the resource center and the total scope of the center.

Activity No. | *Evaluation Criteria*

8.3.2.2.A

The trainee was to go to a local Special Education Materials Center or a similar facility of his own choosing. In a written report the trainee was to describe the resources (financial, personnel, organization, time etc.) and their relationship to each other and the centers total scope as he assesses them.

Upon completion the trainee was to submit this report to you for verification. Once the report is mutually satisfying to you and the trainee, in terms of completeness, accuracy etc. the trainee is to alter one resource forecast its effect on the other resources. Five suggested alterations are included below.

1. increase the budget by a specified amount. (5,000, 10,000, 15,000, etc.
2. cut the budget by a specified amount
3. add new staff, i.e., a secretary, a librarian, a media technician etc.
4. subtract a staff member
5. increase the size of the physical surrounding

The only constraint, is that the trainee can alter only one variable, the others must remain constant.

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.3.3 To assist the trainee in determining the actual services provided by a local resource center.

Behavioral Objectives:

8.3.3.1 The trainee shall be able to list at least four means of obtaining data to determine the services performed by a local resource center.

8.3.3.2 The trainee shall be able to employ data gathering techniques to obtain necessary information on the services provided by a resource center.

Competency Component: 8.3.3 To assist the trainee in determining the actual services provided by a local resource center.

Behavioral Objective: 8.3.3.1 The trainee shall be able to list at least four means of obtaining data to determine the services performed by a local resource center.

Enabling Activities	*Resources*	*Comments*
8.3.3.1.A Evaluation is the process of obtaining information and then using that information to make judgments which are used in making decisions. If rational decisions are to be made concerning resource centers, the facilities must be evaluated to insure accurate judgments forming the basis for the decision making process. The curriculum consultant should know what information gathering techniques are available to obtain the data upon which sound judgments and wise decisions can be made. Therefore, you are to read the first two selections in the resource section which suggest several data gethering techniques. Supplement this reading with as many additional sources as you need to produce a list of data gathering techniques which numbers at least 8-10.	8.3.3.1.A Brown, Norberg, Srygley. Administering Educational Media. New York: McGraw-Hill Book Co., 1965. Pp. 412-419. Erickson, C. Administering Instructional Media Programs. New York: MacMillan, 1968. Pp. 599-602, 625-627.	
8.3.3.1.B Using the list you developed in 8.3.3.1.A, be sure you can distinguish, in a written or tape recoreded report:	8.3.3.1.B Parten, M. Surveys, Polls, and Samples: Practical Procedures. New York: Harper & Brothers, 1950.	8.3.3.1.B The references listed are general references which you are not to read (cover to cover) but to use

8.3.3.1.B (continued)

1. Subjective and objective data gathering procedures
2. Quantitative and qualitative data gathering
3. Internal (self) evaluation and external evaluation
4. Norm referenced and criteria referenced measurement

8.3.3.1.B (continued)

Remmers, H.H., and Gage, N.L. Educational Measurement and Evaluation. New York: Harper & Brothers, 1955.

Gronlund, N. Part IV. Evaluating procedures, products, and typical behavior. Measurement and Evaluation in Teaching, New York: MacMillan Co. 1971.

Popham, W.J. (Ed.). Criterion-Referenced Measurement (An Introduction). Englewood Cliffs, New Jersey: Educational Technology, 1971.

Fogel, R.L. An pproach for rogram valuation. Educational Technology, November, 1971, 39-42.

8.3.3.1.B (continued)

for specific information you, individually, need.

Competency Component: 8.3.3 To assist the trainee in determining the actual services provided by a local resource center.

Behavioral Objective: 8.3.3.1 The trainee shall be able to list at least four means of obtaining data to determine the services performed by a local resource center.

Activity No.	*Evaluation Criteria*
8.3.3.1.A	The trainee was given two readings dealing with information gathering techniques for decision making. From these readings and any others the trainee may choose to read, the trainee was to produce a list of 8-10 data gathering techniques. A sample listing is included below. 1. standardized order forms 2. interview 3. conferences 4. formal studies 5. self analysis check lists 6. anecdotal records 7. opinion forms 8. rating scales 9. record keeping system 10. questionnaire 11. visiting field consultants. 12. evaluation teams
8.3.3.1.B	Using the list prepared in the previous activity (8.3.3.1.A.) the trainee will verbally distinguish those techniques which are representative of the following: 1. subjective and objective data gathering procedures 2. quantitative and qualitative data gathering 3. internal and external evaluation 4. normative and criterion referenced measures

Competency Component: 8.3.3 To assist the trainee in determining the actual services provided by a local resource center.

Behavioral Objective: 8.3.3.2 The trainee shall be able to employ data gathering techniques to obtain necessary information on the services provided by a resource center.

Enabling Activities	*Resources*	*Comments*
8.3.3.2.A Gathering data is not an abstract process or an end in itself. Data is gathered to obtain specific information, usually in order to make evaluative judgments and administrative decisions. The curriculum consultant is expected to provide guidance and direction in the establishment, revision, and operation of a local resource center. Several examples of instruments that have been used by resource centers to gather data are included in the Resource section. You are to complete two tasks in this activity; first, familiarize yourself with all of these instruments until you can determine and identify the data gathering technique used (or suggested) in each evaluation. Then select two instruments or programs and evaluate them in a written report.	Resource File 8.3.3.2.A 1. Guidelines for Developing & Maintenance of Associate SEIMC's. Prepared and distributed by Northwest Regional Special Education Instructional Materials Center. Eugene, Oregon: University of Oregon, 1970. 2. Lilly, M., and Kelleher, J. Teachers Perceived Instructional Needs in the Northwest Region. 3. Fulton, W. R. Developing a self-evaluation instrument for appraising educational media programs. Audiovisual Instruction, January, 1966. 4. E. G. Evaluating media resources for urban schools. Audiovisual Instruction, September, 1971, 16, 25-27. 5. Erickson, C. Administering Instructional Media Programs. New York: MacMillan, 1968, 601-603. 6. Stull, L., and Hulley, E. G. Some materials centers in the midwest. Journal of Teacher Education, December, 1960, XL, 570-572.	8.3.3.2.A Although not required, the following resources might help you when making your own evaluations: Manion, D. Standards as guidelines? Resources for Teaching and Learning, Fall, 1971, 28-29. Instructional materials service. Evaluative Criteria. Washington: National Study of Secondary School Evaluation. Mitchel, Boyd. Evaluative criteria for college instructional centers. Audiovisual Instructions, September, 1965, 10, 572-573. Trenholm, A. K. Standards, Audiovisual Instruction, September, 1968, 13, P. 697.

Competency Component: 8.3.3 To assist the trainee in determining the actual services provided by a local resource center.

Behavioral Objective: 8.3.3.2 The trainee shall be able to employ data gathering techniques to obtain necessary information on the services provided by a resource center.

Enabling Activities	*Resources*	*Comments*
8.3.3.2.B You have seen examples of data gathering techniques either used, or recommended for use, to determine the services performed by a resource Now you are to apply what you have learned and develop a year's program of information collection for a resource center of your choice (for example, SEIMC-UMC, TEMCO center in Lebanon, or a school district IMC). Present this report for approval to your advisor as though you were presenting it for approval to the administrator of the center.		8.3.3.2.B Your report should include at least the following: 1. Means for identifying the service area. 2. Means for obtaining relevant data, including samples of instruments and schedules to be used, etc. 3. Means for implementing the evaluation program, including time schedules, personnel, etc. 4. Means for summarizing and quantifying data collected.

Competency Component: 8.3.3 To assist the trainee in determining the actual services provided by the local resource center.

Behavioral Objective: 8.3.3.2 The trainee shall be able to employ data gathering techniques to obtain necessary information on the services provided by the resource center.

Activity No.	*Evaluation Criteria*
8.3.3.2.A	The trainee was given a series of articles to read, all dealing with evaluation instruments that have been used by resource centers to gather data. After reading each resource, the trainee was to 1) identify the data gathering techniques being employed and 2) select two of the instruments and prepare a written evaluation of each. Each response can conceivably be different while still being appropriate. Therefore evaluate each report individually while keeping the following criteria in mind: 1. Is each evaluation supported logically and realistically? 2. Do the evaluation and identified data gathering technique parallel each other or do discrepancies exist?
8.3.3.2.B	The trainee has been asked to apply the information acquired on data gathering techniques in previous activities by developing a year's program of information collection for the resource center of their choice. The program, to fulfill minimal requirements, should include the following: 1. means for identifying the service area 2. means for obtaining relevant data, including samples of instruments, and schedules to be used, etc. 3. means for implementing the evaluation program, including time schedules, personnel etc. 4. means for summarizing and quantifying data collected

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.3.4 To assist the trainee in developing evaluation techniques to determine how effective a local resource center is in meeting the needs of its service area.

Behavioral Objectives

8.3.4.1 The trainee shall be able to evaluate the appropriateness of data gathering techniques when given the task of assessing the effectiveness of a local resource center in meeting the needs of its service area.

8.3.4.2 The trainee shall be able to use appropriate data to form evaluative judgments.

Competency Component: 8.3.4 To assist the trainee in developing evaluation techniques to determine how effecitve a local resource center is in meeting the needs of its service area.

Behavioral Objective: 8.3.4.1 The trainee shall be able to evaluate the appropriateness of data gathering techniques when given the task of assessing effectiveness of a local resource center in meeting the needs of its service area.

Enabling Activities	*Resources*	*Comments*
8.3.4.1.A Evaluation should be an on-going process on every level of education today. The resource center must be accountable for meeting the needs of its service area. To do this two things must be established: The needs, real and perceived, of the service area, and the quantity and quality of the services performed by the center to meet the needs. You have already identified a number of data gathering techniques. List these and describe each as to: 1. Procedure employed to collect information. 2. The type of information obtained. 3. The possible applications of this type of information - the type of judgments and/or decisions that would use this type of information. 4. The efficiency, reliability, and validity of this type of information. 5. The place of this type of procedure in the total evaluation process.	8.3.4.1.A 1. Behavioral Objective 8.3.3 2. Erickson, C. Administering Instructional Media Programs. New York: MacMillan, 1968. Pp. 599-609, 627. 3. Brown, Norberg, Srygley. Administering Educational Media. New York: McGraw-Hill Book Co., 1965. Pp. 412-419.	

Behavioral Objective Continued:

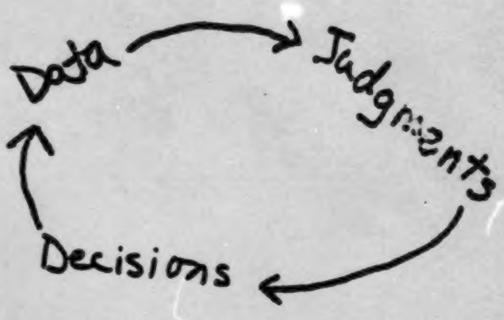
8.3.4.1.B

Faced with a given task, the curriculum consultant must decide what kinds of judgments, and therefore decisions, must be made, and use that knowledge to guide the selection of appropriate data gathering techniques. Different problems call for different inputs to reach solutions.

Given the problem of evaluating the effectiveness of a local resource center in meeting the needs of the special education teachers it serves, list the data gathering techniques in rank order from most to least effective and/or relevant in producing appropriate data. Be prepared to explain your judgment to your advisor.

8.3.4.1.B

The process really is rather a round - Data determine what judgments are made; the judgments made determine what decisions are made; the kinds of decisions to be made determine what data is needed.



Competency Component: 8.3.4 To assist the trainee in developing evaluation techniques to determine how effective a local resource center is in meeting the needs of its service area.

Behavioral Objective: 8.3.4.1 The trainee shall be able to evaluate the appropriateness of data gathering techniques when given the task of assessing the effectiveness of a local resource center in meeting the needs of its service area.

Activity No.	*Evaluation Criteria*
8.3.4.1. A	This activity is an extension of activity 8.3.3.2.A in which the trainee was asked to identify various data gathering techniques. As activity 8.3.3.2.A necessitates individual evaluation so must this one which asks the trainee within the activity to relate to the data gathering techniques identified.
8.3.4.1.B	The trainee, given the problem of evaluating the effectiveness of a local resource center in meeting the needs of the special education teachers it serves, was to list the data gathering techniques in rank order from most to least effective and/or relevant in producing appropriate data. Of main concern here, even though this activity entails individuality and thus be so evaluated,is the rationale and purpose for the final product.

Competency Component: 8.3.4 To assist the trainee in developing evaluation techniques to determine how effective a local resource center is in meeting the needs of its service area.

Behavioral Objective: 8.3.4.2 The trainee shall be able to use appropriate data to form evaluative judgments.

Enabling Activities	*Resources*	*Comments*
8.3.4.2.A At some point, the data gathered through the appropriate techniques, which have themselves been evaluated must be summarized and organized so that they are understandable, relevant, and capable of interpretation. This, then, becomes the basis for the formulation of judgments and subsequent decisions. "Implicit in the entire process is a set of standards clearly understood by all who participate."* Many times, the same data may be used to show the success, or failure, of an operation depending upon the criteria selected. Given the task of evaluating a local resource center which services special education, what set of standards would you use?	8.3.4.2.A You have already worked with several sets of ceiteria in previous activities. You may wish to refer to these or to - Erickson, C. Administering Instructional Media Programs. New York: MacMillan, 1968. Pp. 599-601, including the footnotes, to start your research. *Erickson, C. Administering Instructional Media Programs. New York: MacMillan, 1968. P. 600.	8.3.4.2.A This activity may be best understood by the well known joke: "Why, John, good to see you! How is your wife?" "Compared to what?"
8.3.4.2.B Given the set of standards you developed in 8.3.4.2.A, or a set you feel more appropriate, and the availability of the SEIMC-UMC, eval-	8.3.4.2.B 1. Activity 8.3.4.2.A 2. Resource File 8.3.4.2.B	

Behavioral Objective Continued:

8.3.4.2.B (continued)

uate the effectiveness of the center in meeting the needs of its service area. Use the records available to base your judgments on, but make any recommendations you feel appropriate as to other data which should be collected.

Evaluation procedures used by the other SEIMC's in Missouri, as well as descriptions of their operations, are available in Resource File 8.3.4.2.B

8.3.4.2.B (continued)

MO-IMC
Department of Special Education
Southwest Missouri State Teachers College
Springfield, Missouri 65802
Dr. Jim Moore, Coordinator of Special Education

MO-IMC
Division of Special Programs
Northeast Missouri State Teachers College
Kirksville, Missouri 63501
Dr. William Hall, Division of Special Services

MO-IMC
Department of Special Education
University of Missouri-St. Louis
8001 Natural Bridge Road
St. Louis, Missouri 63121
Mr. Walter Cegelka, Coordinator of Special Services

MO-IMC
Special Education Department
Southeast Missouri State Teachers College
Cape Girardea, Missouri 63701
Dr. Richard Blankenship, Director of Special Education

MO-IMC
Springfield Regional Diagnostic Center
1515 East 50th
Springfield, Missouri 65803
Dorothy Priester, Coordinator

8.3.4.2.B (continued)

MO-IMC
Hannibal Diagnostic Center
805 Clinic Road
Hannibal, Missouri 63401
Lynn Hitchings, Corridnator

MO-IMC
Rolla Diagnostic Center
105 Fairgrounds Road
Rolla, Missouri 65401
Pat Warrick, Coordinator

MO-IMC
Special Education
Central Missouri State Teachers
College
Warrensburg, Missouri 64093
Dr. Cliff Garey, Coordinator of
Special Education

Competency Component: 8.3.4 To assist the trainee in developing evaluation techniques to determine how effective a local resource center is in meeting the needs of its service area.

Behavioral Objective: 8.3.4.2 The trainee shall be able to use appropriate data to form evaluative judgments.

Activity No.	*Evaluation Criteria*
8.3.4.2.A	The trainee was asked to state what standards he would use in evaluating a local resource center which services special education. This must be evaluated individually taking into account the rationale and judgement used for his evaluation. A few things he might consider are: 1. extent of service area 2. hours 3. accessibility 4. equipment (hardware) 5. loan policy 6. personnel - teachers, student teachers, college students 7. delivery of services 8. extent of available services
8.3.4.2.B	The trainee was to utilize his set of standards for evaluation of resource centers along with the evaluation criteria found in Resource File 8.3.4.2.B to a SEIMC. Trainee should be able to defend his rationale and/or judgment for his evaluation. No formal evaluation criteria is needed.

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objectives:

8.3.5.1 The trainee shall be able to prepare original communications which convey factual information.

8.3.5.2 The trainee whall be able to prepare and deliver effective persuasive communications.

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center,

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Enabling Activities	***Resources***	***Comments***
8.3.5.1.A	8.3.5.1.A	
Either establishing a new resource center, or revising an existing one, constitutes a program change. The rationale for including communication in the process of change is very simple:	Resource File 8.3.5.1.A	
1. The implementation of program change is both a human and technological manipulation. 2. Rational human decisions are based upon the best available information. 3. The supply of the best possible persuasive information is a communication task for which the curriculum consultant is responsible. 4. Manipulation of technology, compared to management of people, is a relatively simple task.		
Communication is a complex task, one that can be studied extensively for years. But it can also be simplified, and that is the purpose of this acitvity. After all, words convey meanings. Effective communication is often a matter of selecting the correct word, or words, to convey		

Behavioral Objective Continued:

8.3.5.1.A (continued)

what is meant. Resource File 8.3.5.1.A contains a simple communications game. Play the game.

Remember as you play this game that while words do have connotative as well as denotative values, the more precise the word is, the greater the likelihood is that the correct interpretation will be made by the greatest number of people (recievers).

8.3.5.1.B

Communication may be written or spoken, formal or informal, obvious or subtle, visual or auditory. In addition, many communications combine these--so we have spoken and visual, formal, obvious communiqués'.

Throughout your school career you have studied communications using language--both written and spoken. However, only recently have we become aware that pictures must also be read; the viewer must have visual literacy. You need to know how to compose and use pictures that communicate your meaning to others. Therefore, a filmstrip and work sheet on "How Does a Picture Mean?" have prepared for you and are in REsource File 8.3.5.1.B. In addition, this file contains related materials and resources on visual literacy that may be of interest to you. Complete the worksheet and turn it in to your advisor.

8.3.5.1.B

Resource File 8.3.5.1.B

1. "How Does a Picture Mean?"
2. La Polt, R. A new approach to visual and written sequencing Audiovisual Instruction, May, 1968, 13:5, 477-479.

The parallels between visual communications which do and do not use language have been drawn in this activity. Many of the same parallels exist between spoken and written communications. If your experience in this area is limited you would profit from reading Flesh, Rudolf Franz, The ABC of A Guide to Plain English, New York: Harper & Row, 1964, and Hovland, Carl Iver, Irving L. Janis, and Harold H. Kelly, Communication and Persuasion, New Hven, Connecticut: Yale University Press, 1952, and compare and contrast these two communication modes.

8.3.5.1.C

The purpose of words, pictures, and/or symbols is to communicate as precisely as possible from one person to another. The following exercise provides practice in simple, direct communication, a skill you will find useful in all your experiences.

Your assignment is to assemble the articles in Resource File 8.3.5.1.C until you have used all but two pieces. Compose a message describing what you did.

Disassemble what you made and give the box, plus your directions, to someone else to follow and watch as they develop their product using your instructions. The only requirement is that you can give no additional information (either by word, deed, or expression!) to the other person as he assembles the product. Do not proceed to the next page until your "learner" is satisfied.

In most cases, the product you intended and the product produced by the learner is different--sometimes very different. In watching the learner you may have found the weaknesses in your directions. In this activity the product is not important except as a device for appraising your own ability to communicate. Evaluate your own performance in a written report and make note of three techniques you could practice to improve future performances.

8.3.5.1.C

Resource File 8.3.5.1.C

Four steps are important when you want to give clear assignments and instructions. After you have decided who is to do the work and seen to it that the necessary materials are on hand, you should:

1. Organize the information about what you want done.
   What are the main points (topics, activities, etc.)?
   What are the relevant details for each main point?
   In what order should the main points be presented?
   (Usually the most important comes first.)

2. Present the information to the employee.
   Get his or her attention.
   State the overall subject.
   State the main points including relevant details, one at a time.
   Use concrete words and demonstrate or provide samples, if possible.

3. Obtain feed-back from the employee.
   Make sure he or she understands each main point.

4. Build in follow-up.
   Make clear when the work is to be completed.
   Make clear what you consider acceptable work.
   Make clear when and how you will check on the work.

8.3.5.1.C

Do not use another trainee in this activity.

8.3.5.1.C (continued)

The resource section contains information on giving instructions that might be helpful in the self-evaluation of the directions you wrote.

You may find it helpful to redo your directions and try this exercise again.

8.3.5.1.D

To demonstrate your ability to prepare factual communications, prepare a brief presentation, either written or verbal and using any kinds of materials you wish, which describes four goals of a special education Instructional Materials Center. Give this presentation to five friends or colleagues (not trainees). No sooner than one day later ask them to list the goals they remember. Out of a possible score of 20 (4 changes X 5 respondents) evaluate yourself as follows:

20-19	Excellent
18-17	Good
16-15	Careful
Below 15 -	Better try again

Discuss your conclusions with your advisor.

8.3.5.1.D

"Brief" in this activity would indicate no longer than five minutes or two typewritten pages.

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.

8.3.5.1.A

Evaluation Criteria

The trainee was asked to play a simple communication game stored in Resource File 8.3.5.1.A.

The first two sections of the game illustrated below required the trainee to respond to two separate stimuli; a picture of a dog and the word dog.

1. Look at the picture and list below it as many different meanings, or reactions, as possible in a two minute period.

2. Now do the same thing with the word DOG, adding as many new different meanings as possible, being imaginative, but accurate. After three minutes, compare the first list with the second.

The trainees responses for the first stimuli should be of a much more general nature than those elicited from the second. For example the second list will probably include such meanings as frankfurter, ugly person, gripping device, which are not possible in the first example.

The third section gave the trainee a list of statements. The trainee was to place them in the pyramid of abstraction provided for them.

3. Listed below are several statements that describe job requirements. Place them in the pyramid of abstraction on the next page--the easiest way would be to pick the most general statement and place it on the bottom and proceed up from there.

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.	*Evaluation Criteria*
8.3.5.1.A (continued)	a. must be able to do the job of media director b. must be able to copy, reproduce, preserve and evaluate graphics c. must be able to reproduce, preserve, and evaluate both black and white and multi-color printed materials d. must be able to plan, program, budget, and evaluate a media program for a school district e. must have work experience f. must have experience in school administration g. must be able to copy and reproduce printed materials h. must be able to copy, reproduce, preserve and evaluate graphics i. must be able to plan and administer a media program Once responses were arranged, the trainee was to score his efforts according to the following criteria. (on following page)

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.

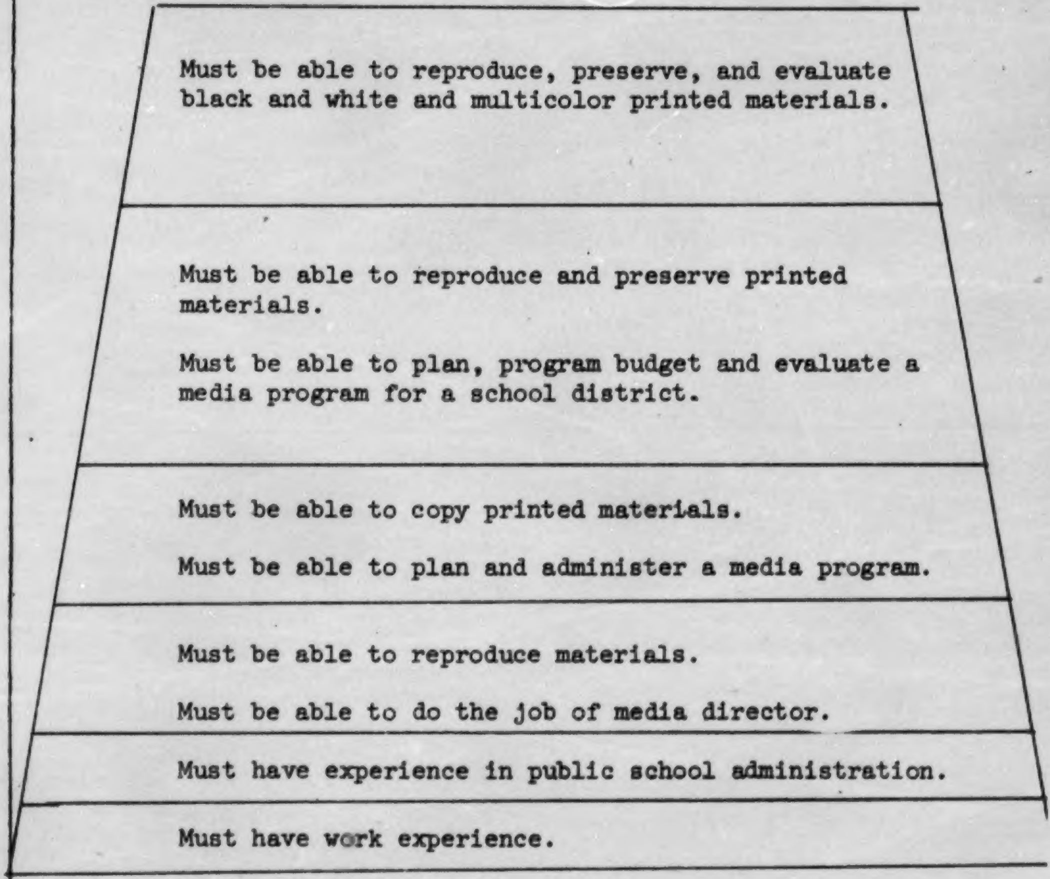
8.3.5.1.A
(continued)

Evaluation Criteria

To Score:

Allow five points for each item that matches exactly the solution given below
Allow four points for each statement that is off by one level
Allow one point for each statement that is off by two levels

Correct Answers:



Must be able to reproduce, preserve, and evaluate black and white and multicolor printed materials.

Must be able to reproduce and preserve printed materials.

Must be able to plan, program budget and evaluate a media program for a school district.

Must be able to copy printed materials.

Must be able to plan and administer a media program.

Must be able to reproduce materials.

Must be able to do the job of media director.

Must have experience in public school administration.

Must have work experience.

45 = Excellent
44 - 43 = Good
40 - 42 = All right
Review below this level

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.	*Evaluation Criteria*

8.3.5.1.B.

The trainee has been asked to view a filmstrip and complete an accompanying workbook. Sections of the workbook requiring responses are duplicated below along with appropriate responses.

8. Just as in a verbal sentence, the predicate element of a picture describes the action of the subject. In this picture, the dog appears playful, but the turtle seems annoyed. In verbal terms, the predicate could range from "teased" to "played with" to "annoyed." Now take a moment to develop an alternative to the sentence given for this picture and identify subject, object element, and predicate verb.

The	turtle	snaped	at	the	dogs'	nose.
	subject element	*predicate element*			*object element*	

12. Here is another picture. Develop a sentence which tells what the picture says. Name the subject, predicate and object elements of this picture.

The	girl	watched	the	caterpillar.
	subject element	*predicate element*		*object element*

13. Here is a close-up picture of the same caterpillar How did the object element of the previous picture become the subject element of this picture?

The subject in the previous picture was cut out, leaving only the caterpillar, which then becomes the subject.

14. Identify the elements (subject, predicate, object) in this picture:

subject element: the frog
predicate element: sat in
object element: the grass

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.	*Evaluation Criteria*
8.3.5.1.B. (continued)	

15. In this one:

subject element: the boats
predicate element: floated in
object element: the water

16. In this one:

subject element: the hands
predicate element: shaped
object element: the pot

17. What are the major elements here?

subject element: boy
predicate element: cried

21. The person who made this visual statement has included too much. He needs to narrow the subject just as you narrow the subject of your verbal compositions. This picture shows a wooded area close to a river. Within this statement are numerous opportunities for making a variety of visual statements. This picture says too much. The reader will be confused. The photographer included trees, wild flowers, a river, a boy, a dog, and a barn.

Stop for a moment and list two ways to improve this picture.
1. *crop the picture to include only the flowers*
2. *crop the picture to include only the boy and the dog.*

23. If we change our point-of-view by moving back, the message becomes more clear to our reader. This picture now has a compound subject. Discuss the elements in this picture and the visual clues that reveal the message of this picture.

The subjects are the boy and dog. There appears to be mutual affection between the two as reflected in the boy's hand on the dog's head.

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.

8.3.5.1.B (continued)

Evaluation Criteria

24. What does this picture say? What visual clues do we see?

A girl was pulling petals from a flower.
You see a girl, a flower with petals, and hands.

25. What's the difference between this picture and the previous one?

The girl is no longer the object. Now the hands have become the object.

26. Both of these pictures seem to say "A girl picked the petals of the daisy." However, the picture on the left includes the girl's face. This picture tells us what girl--girl with straight, blonde hair and freckles. What are some other differences in the message of these two pictures?

The first picture places the objects in a field, whereas the setting in the second picture is ambiguous.

27. Here, a physically small object is the center of our attention. Compare this picture with the close-up of a caterpillar (No. 13). Answer these questions: Do you like this picture: Would you have taken this picture from the same point of view? Why? Does this picture say too much? Too little?

The picture is pleasing and seems to relay enough information to make the picture meaningful while not cluttering the picture with too many details.

31. In this view, the kitten is the major subject element. How do these three pictures differ in meaning?

The focus shifts from the girl, to the girl and the kitten, to just the kitten.

33. Is this the best viewpoint from which to show the action? What humor is evident in this picture?

It appears that the runner is making faces at the baseman.

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.

8.3.5.1.B
(continued)

Evaluation Criteria

38. Examine the viewpoint used here. Is it effective? Provide an alternative to this picture; explain what it would do to the original meaning.

The picture is confusing and would probably be more meaningful if taken from the side view. This would illustrate the blocking tactics more effectively.

40. The photographer held his camera at waist level for this picture. Because the photographer chose a low point of view from the front, the lead cyclist dominates the visual statement. This point of view enhances the predicate element, too. Instead of saying "The cyclists rounded the bend," this picture says "The cyclists roared around the bend!" A photographer's point of view may alter or enhance a visual statement. In verbal language, an author's selection of point of view affects the reader's reaction. Is this true in visual language? Give examples.

a. yes
b. Different manings would result from each of the following alterations in the cyclist picture.
    1. the cyclists face only
    2. the spinning tires only
    3. the side view of one cycle

46. With a background of boats, dock, water, and misty fishing shacks, you now have more clues. You may not know that the objects in the foreground are lobster pots, but the background supplies the context that tells you these objects are associated with fishing.
In the following four pictures, evaluate the background in terms of providing context for the intended message.

47. *The pyramid is an appropriate background for the camel. However at first glance the upward angle of the camels head is confusing.*

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.

8.3.5.1.B (continued)

Evaluation Criteria

48. *Some of the background sign needs to be cropped. It distracts from the subjects.*

49. *The car is distracting, The picture would have been better showing just the deer and the man.*

50. *Again, the background is too busy, containing many distracting stimuli.*

55. What you include depends upon what you want to say. Write a sentence on what each of these pictures say.

a. a baby's face
b. A baby looking out of his crib

56. What is this girl doing? Where is she? Why is she yawning? Is this a humorous picture? To answer these questions, let's change our point of view.

There is not enough information to complete these questions.

59. Here's a similar example. Change the meaning of this picture by eliminating contectual clues. What clues did you eliminate? Why?

The mother, changes the focus to the baby.

65. Identify the viewpoint used by the photographer in this picture. Evaluate the picture. Give an example of a picture in which this point of view would not be effective.

This is a closer viewpoint. This approach would not work with a complex subject element.

66. Identify the elements in this picture.

The	bird	is	setting	in	a	pine tree.
	subject element		*predicate element*			*object element*

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.

8.3.5.1.B (continued)

Evaluation Criteria

67. What is the predicate element in this picutre? Is there an object element? Why is the background effective?

    a. *leaning against a door*
    b. *establishes an out-of-doors setting*

68. A baby picture like this is amusing to any general audience. What is the major element her--subject, predicate, or object?

    The baby is making a face at the camera.

    subject *predicate* *object*

69. This picture makes several statements. Write at least three.

    1. *the sun is setting*
    2. *a couple is standing near the ocean*
    3. *there are several big rocks on the beach*

70. Convey the message you get from this picture in prose.

    Accept any reasonable response.

71. Write a statement for this picture. Then write an alternate statement.
    Accept any reasonable response.

72. What are the major elements and the meaining in this picture?

    houses

73. The intense interaction between subject and predicate elements seems to be the clue to the appeal of this picture. What technique helped to make this a good picture?

    A close side viewpoint and a contributing background help make this a good picture.

74. What is the theme of this picture: Does this theme have universal appeal both emotionally and visually? Why did the photographer position his camera at a low angle?

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.	*Evaluation Criteria*
8.3.5.1.B (continued)	a. *the boys were working on a car* b. *yes* c. *to illustrate the intense interest of several subjects.* 75. The message of this picture seems to be "A boy carved a wooden statue." Does the statue share equal importance with its carver? Do you think the photographer planned the picture with this in mind? Discuss. accept all reasonable responses 76. What is the subject element here? Is there a predicate element in this picture? What does this picture say? *The dog yawned.*
8.3.5.1.C	The trainee was to utilize the directions in Resource File 8.3.5.1. to complete a task. The activity is self-evaluative and needs no formal evaluation criteria.

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.1 The trainee shall be able to prepare original communications which convey factual material.

Activity No.	*Evaluation Criteria*
8.3.5.1.D.	The trainee was to prepare a brief factual presentation describing four goals of a Special Education Instructional Materials Center. The type of materials and approach utilized during the presentation were to be determined by the trainee. This presentation was to be given to five people other than SECTraC trainees. One day or more following the presentation the trainee was to ask the people who attended the presentation to list the goals they remember. Out of a possible 20 (4 goals times 5 participants) the trainee was to evaluate himself as follows: 20-19 Excellent 18-17 Good 16-15 Careful Below 15 Try again

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.2 The trainee shall be able to prepare and deliver effective persuasive communications.

Enabling Activities	*Resources*	*Comments*
8.3.5.2.A One of the basic premises in this country is that a well informed electorate is capable of making wise decisions concerning its own welfare. This democratic approach has become very popular in schools; the task of informing the school population is often given to the curriculum consultant. To provide information to interested personnel is not an easy job. It implies an understanding of semantics, communication symbols and structures, and the ability to organize and present facts effectively. However, the curriculum consultant often needs to do more than convey information. As a curriculum consultant your job will include proving leadership, giving direction, and initiating and implementing change; this calls for gaining acceptance for conclusions already drawn from available information. The purpose of communications which seek acceptance differs from those which seek to convey facts, even though the information contained in each may be similar. For	8.3.5.2.A Oliver, Robert T. The Psychology of Persuasive Speech. New York: Tongman, Green, & Co., 1967.	

8.3.5.2.A (continued)

example, a communication which encourages faculty to use the services of a local resource center would differ from a communication which informs the faculty on services available through the local resource center; even though both would contain much of the same information, the purpose of each is different.

Persuasion carries with it a moral obligation to promote the best causes available. In order to successfully gain acceptance, it also employes a wide range of appeals, motivations, and forms of support. Persuasive communications use all of the techniques for effectively relaying information and adds to them emotional and psychological appeals and motivations.

The resource section of this activity contains one source which discuss the differences between persuasive and informative communication in terms of purpose, appeals, motivation, and forms of support. Read this , and any other sources you think necessary, until you can complete the following assignment:

Use a topic of your choice and prepare either two articles or two speeches on that topic, the purpose of one being to inform and the other to persuade. These communications need

8.3.5.2.A (continued)

not be long but should clearly demonstrate your knowledge of the differences between the types of communications and your ability to produce successful communiqués. Submit either your written articles or taped speeches (with accompanying materials, if any), to your advisor.

8.3.5.2.B

Audience analysis, important in all communication processes is especially important in persuasive situations.

Your ability to analyze your audience, whether one teacher or a system wide group of teachers and administrators, may well be the factor which determines acceptance or rejection of your purpose.

The reading in the Resource section will help you to 1.) analyze your audience, and 2.) adapt your communiqué to the needs and attitudes of a given group. Read these carefully. Then complete the following assignment to demonstrate your understanding.

You are to prepare three two-minute "commercials" designed to "sell" the utilization of some form of media (i.e., tape recorders, language master, overhead projector) to three different audiences--1) a

If there is a question as to your understanding of audience analysis and the persuasive situation, you may be requested to explain why you chose the appeals, evidence, motivations, approach you did.

8.3.5.2.B (continued)

knowledgeable, supportive group, 2) an indifferent group, 3) a hostile, but aware, group.

8.3.5.2.C

Communication emerged as a distinct and important field as recently as 25 years ago. Today the importance of successful communication is recognized in every field--business, industry, government, education. In connection with media, the name of the national organization was recently changed from the Division of Audio-Visual Education to the Association for Education Communications and Technology. It is appropriate that those involved in using audio and visual means of relaying facts and feelings recognize the total procedure is one of communicating.

Many different types of communications are important when the curriculum consultant for Special Education is assisting in the establishment or revision of a local resource center. You need to know the uses of communication skills and techniques in media programs as administered through resource centers.

The resource section for this activity contains five references which illustrate the importance of

8.3.5.2.C

Berlo, D, You are in the people Business. Audiovisual Instruction, June, 1963, 8, 372-381.

Communications revolution, 16mm film, 20min., Ohio State University, 1967 (available thru UMC film library).

Resource File 8.3.5.2.C

* Hartz, F., Elstein, H. Public relations and the secondary school media center: the director's role. Audiovisual Instruction, January,1970, 15, 61-63 (file).

* Tanzman, J. Using media to let others know what you are doing. School Management, Vol. 14, p. 40, & BOCES Makes It Possbile--slide-tape presentation.

* Media Memos - Southern Regional Media Center for the Deaf.

*Starred items are contained in the resource file.

8.3.5.2.C (continued)

different types of communications and their use in media programs. Read these resources. Then search the literature for additional sources until you can compile a list of at least ten uses of communication in establishing, revising, or promoting a local resource center. Submit your list of uses and your list of references to your advisor.

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.2 The trainee shall be able to prepare and deliver effective persuasive communications.

Activity No. *Evaluation Criteria*

8.3.5.2.A

The trainee was asked to read the references contained with Resource File 8.3.5.2.A and then to prepare two articles or two speeches, one to inform and the other to persuade.

Although this must be evaluated individually, the trainee should have noted the differences between persuasive and informative:

	PERSUASIVE		INFORMATIVE
purpose	effect a change in feelings and/or actions of an audience		to convey factual information with no value judgmen
appeals	emtotional as well as intellectual		intellectual - given clarit precision; new information
motivates	intellectual psychological emotional	basic needs	intellectual
forms of support	dramatic emotionally ladened visual impact		testimony empirical data, statistics charts, graphs

8.3.5.2.B

The trainee was asked to read the reference in the Resource section, and then to prepare three two-minute "commercials" designed to sell. This activity must be evaluated individually; however it should be noted if his presentation contains:

1. facts
2. interest
3. appeal
4. stimulation or antagonism

The instructor should also note in his presentation to the various groups if he varies his approach or presentation based on the group to whom the presentation is made.

For example: knowledgeable group - present new and different concept endeavoring to enhance learning
indifferent - provide stimulation and interest
hostile - trying to overcome hostility

Competency Component: 8.3.5 To assist the trainee in applying communication skills to the task of establishing or revising a local resource center.

Behavioral Objective: 8.3.5.2 The trainee shall be able to prepare and deliver effective persuasive communications.

Activity No.	*Evaluation Criteria*
8.3.5.2.C	The trainee was given five resources, each of which illustrate a different approach to communications within media program. One example was Media Memos consisting of a set of mimeographed pages written on a humorous light hearted manner. Another example discussed the advantages of filmstrip/cassette presentations in terms of cost transportability etc. After reading the five examples, the trainee was to do a literature search for additional sources resulting in a list of at least ten uses of communication in establishing, revising, or promoting a local resource center. Accept all reasonable responses.

INSTRUCTIONAL UNIT SPECIFICATIONS

Competency Component:

8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objectives:

8.3.6.1 The trainee shall be able to analyze situations to determine what elements would be involved when producing effective change.

8.3.6.2 The trainee shall be able to describe at least five different systems which could be helpful to the curriculum consultant when establishing or revising a local resource center.

8.3.6.3 The trainee shall be able to define and discuss PERT and list several applications for the technique in education.

8.3.6.4 The trainee shall be able to define and discuss PPBS as a means of effecting change.

8.3.6.5 The trainee shall be able to apply PERT, or another technique of his choice, to the task of establishing a local resource center.

Competency Component: 8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objective: 8.3.6.1 The trainee shall be able to analyze situations to determine what elements would be involved when producing effective change.

Enabling Activities	*Resources*	*Comments*
8.3.6.1.A The implementation of program change is both a human and technological manipulation. To successfully manipulate, the administrator or curriculum consultant, must determine what needs to be done, how it can best be done, and translate these decisions into the actions which produce desired changes. Dr. Erickson suggests several types of action which take place in the change process after initiating decisions have taken place. Read this work, and the other sources assigned in the Resource section. Then complete the following assignment: Assume you are the curriculum consultant for special education in Wabash School District. You have been requesting that the teacher's work room in the junior high school be transformed into an operational SEIMC. You and the superintendent submitted a proposal and have just received a federal grant for $20,000 to equip an operate a model center for one year; the school board has agreed to provide an additional $5000 to raise the total	8.3.6.1.A *Erickson, C. Administering Instructional Media Programs. New York: MacMillan, 1968, 46-47. Brown and Norberg. Administering Educational Media. New York: McGraw-Hill, 1965, 266-299,340-355. Teaching center. Learning Laboratories. Pp. 29-32. Organizing a materials center. National Elementary Principal, January, 1961, 40, 28-30. Fox, R.S. and Linley, J.M. A curriculum laboratory for teachers. School Executive, May, 1951, 60, 48-50. Why you need to start an AV program, College and University Business, 41:4, 70-71. Erickson, C.W. Administering Instructional Media Programs. New York: MacMillan Company, 1969. Pp. 46-55, 274-287, 296-297. Resource File 8.3.6.1.A (1)	

8.3.6.1.A

budgeting--remodeling, purchasing, operating, fund to 25,000.

You are to receive the equipment which is already in the work room and secretarial staff will be supplied through the regular school budget.

A small room adjacent to the work room has been allocated as additional space, increasing the total space available by 25%.

The only service presently available to the 20 special education teachers is the loan of AV equipment for classroom use on a request basis (includes 2 overhead, 1 opaque, 1 8mm and 2 16 mm projectors, 3 tape recorders, 3 phonographs, commercially prepared materials to use with them, an extensive television hookup), files and shelves for storing their materials, a duplicating machine (mimeograph) and several journal subscriptions.

The grant proposed an intensive in-service training program using the TV equipment already available to provide demonstrations and the SEIMC as a laboratory to encourage the production of locally developed instructional materials.

The SEIMC was to meet the responsibilities of any SEIMC except that of research.

It is now the joint responsibility of you and the district media director to implement the renovation--from work room to special education local resource center.

1. From the materials in the resource section draw a listing of possible and probable activities necessary to produce the necessary change.

2. A model of an existing teacher's work room is provided for you in Resource File 8.3.6.1.A(1). Study this model and then list, in order, the changes to be made.

3. Compare the listings in 1 to the listings in 2 and make any corrections, additions, or deletions you think appropriate.

4. Produce, using the material available in Resource File 8.3.6.1.A, the changes you have listed, in order, in #3*.

5. Evaluate your own progress and product.

6. Submit the entire activity (3's 1-5) to your advisor.

*You are to produce a model of your resource center, but you may give samples of meeting agendas, publications, etc.

If you need additional help in analyzing situations and pinpointing change activities, you may wish to read a few of the following:

Davis, H.S.,(ed.) Planning a Team Teaching Program. Cleveland: The Educational Research Council of Greater Cleveland, 1964.

Clark, E.C. Set up an AV center. Catholic School Journal, May, 1963, pp. 22-23.

Glenn, M. Organizing a materials center. National Elementary Principal, January, 1961, YL, 28-30.

8.3.6.1.A (continued)

Herman, J.J. The instructional service center: a new concept. American School Board Journal, February, 1964, CXLVIII, p. 17.

Resource File 8.3.6.1.A (2)

Steps toward a multimedia library. The Instructor.

Tanzman, J. Planning instructional change. School Management.

Competency Component: 8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objective: 8.3.6.1 The trainee shall be able to analyze situations to determine what elements would be involved when producing effective change.

Activity No.

Evaluation Criteria

8.3.6.1.A

The trainee was asked to use the references contained in the Resource section for suggestions and/or guidelines in making the necessary changes to renovate a work room into a functional Special Education resource center. To aid in the process of making these changes in some systematic way, a model of an existing teacher's workroom was also provided withing Resource File 8.3.6.1.A.(1). He was to proceed in the following way:

1. Study the model provided and then list, in order,the changes to be made.
2. Compare the listings in 1.to the listings in 2., and make any corrections, additions, or deletions deemed appropriate.
3. Produce using the materials available in Resource File 8.3.6.1.A, the changes he had listed in order in #2.
4. Evaluate his own program and product.
5. Submit the entire activity (#'s 1-4) to his advisor.

Although this activity is self-evaluative and additional resources have been listed in the Comment Column for additional aid, you should discuss the activity with the trainee and evaluate the finished product in terms of comprehensiveness and feasibility of implementing his prescribed changes.

Competency Component: 8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objective: 8.3.6.2 The trainee shall be able to describe at least five different systems which could be helpful to the curriculum consultant when establishing or revising a local resource center.

Enabling Activities	*Resources*	*Comments*
8.3.6.2.A The first activity of this component gave you a problem, the establishment of a SEIMC, some help in solving it, selections in the resource section, and a mediated experience, a model, to test your solutions. The procedure you used would be called hit or miss, trial and error, or learning by doing. However, there are established procedures which eliminate much of the error and effort involved in the think and do method. The resource section contains materials which describe several systems which might be helpful to you. Read these selections and prepare a working definition or description of each system.	8.3.6.2.A Tanner, C.K. Educational operations research: an approach to PPBS implementation. Educational Technology, December, 1971, 50-51. Liechti, A.O. and Chappell, J.R. Making and Using Charts. San Francisco: Fearon Publishers, 1960. Gibbs, W.F. Program budgeting filters down to education. Nation's Schools, November, 1968, 51-53. Buddle, J.F. The lattice systems approach: systems technology for human development. Educational Technology, February, 1972, 2,75-79. Barson, J., Gordan J.M. and Hoinbaker, R.W. Standard operating procedures for learning resources center; a system for producing systems. Audiovisual Instruction, May, 1965, 10, 378-379. Knirk, F.G. and Gentry, C.G. Applied instructional systems. Educational Technology, June, 1971, 11, 58-62.	Some of these articles have bee xeroxed and are available in Resource File 8.3.6.2.A
8.3.6.2.B Choose any two systems from the preceding activity and determine: 1. Similarities and differences between the systems. 2. Strengths and weaknesses of each. 3. Possible uses for each.		

8.3.6.2.A (continued)

Gorow, F.F. Cybernetic instructional system. Educational Technology, October, 1971, 11, p. 67.

Lee, A.M. SAMS: a system for maximum utilization of the physical learning environment. Educational Technology, July, 1971, 11, 46-48.

Tuckman, B.W. and Edwards, K.J. Systems mod model for instructional design and management. Educational Technology, September, 1971, 11, 21-26.

Blendinger, J. ABC's of the systems approach Education, September, 1969, 90, 56-58.

Halpern, G. The MAPS way. Education Cananda, September, 1971, 11, 47-55.

Kolz, R.C. and O-Dell, J. A flow chart approach to curriculum study. Clearning House, October, 1970, 45, 72-75.

Nicolai, F.L. and others. Operations analysis: A model for projecting space, course and staff demands. College and University, Summer, 1971, 791-801.

Benyii, P., Gilkey, J., Instructional unit; a systems approach to multi-media, Audiovisual Instruction, January. 1970, 15, 24-26.

Competency Component: 8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objective: 8.3.6.2 The trainee shall be able to describe at least five different systems which could be helpful to the curriculum consultant when establishing or revising a local resource center.

Activity No.	*Evaluation Criteria*
8.3.6.2.A	This activity is an extension of 8.3.6.1.A and was intended to refine the trainee's knowledge of establishing or revising a local resource center. He was asked to read the selections contained in Resource File 8.3.6.2.A and to prepare a working definition or description of each system. While this activity will be individually evaluated due to the nature of the activity, the advisor should discuss any problems with the trainee and question him to determine if he fully comprehends the process as well as the problems involved in the establishment and/or revision of a local resource center.
8.3.6.2.B	The trainee was asked to choose any two systems for Activity 8.3.6.2.A and determine: 1. similarities and differences between the systems 2. strengths and weaknesses of each 3. possible uses for each The nature of this activity necessitates individual evaluation by the instructor. Discuss with the trainee his rationale for Part 3 of this activity.

Competency Component: 8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objective: 8.3.6.3 The trainee shall be able to define and discuss PERT and list several applications for the technique in education.

Enabling Activities	*Resources*	*Comments*
8.3.6.3 The Government has led in the area of applying a system approach to problems in education. The Program Evaluation Review Technique has proven itself valuable in the area of education. Your knowledge of PERT and your ability to use it in your work as curriculum consultant will be beneficial to you and those you serve.		
8.3.6.3.A The resource section of this activity contains materials which either explain, evaluate, or apply PERT. Compile an annotated bibliography using these sources plus additional sources of your own. A bibliography of materials on PERT is listed under Resources to help you get started.	8.3.6.3.A Resource File 1. PERT for Managers. Metromedia (Argyle) Analean-Didactic System. "Educators and PERT." Journal of Educational Data Processing, (Spring, 1966), p. 52. Miller. "How to Plan and Control with PERT." New Decision Making Tools for Managers, Edward C. Bursk and John F. Chapman, (Eds.). Cambridge, Massachusetts: Harvard University Press, 1963. Cook, D. L. PERT/Applications in Education. U.S. Department of Education.	

8.3.6.3.A (continued)

Croue, R. PERT chart for employing teachers. School and Community, April, 1971, 57, p. 31.

Hole, E. PERT (Program Evaluating Review Technique), an ASTIA report bibliography. Washington, D.C.

Competency Component:	8.3.6	To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.
Behavioral Objective:	8.3.6.3	The trainee shall be able to define and discuss PERT and list several applications for the technique in education.

Activity No.	*Evaluation Criteria*
8.3.6.3.A	The trainee was asked to compile an annotated bibliography using the references in Resource File 8.3.6.3.A as well as additional sources of his own. The evaluation here is straight-forward in examining the trainee's responses for accuracy and completeness. The additional sources should also be analyzed in terms of their pertinence to the problem and their comprehensiveness for inclusion as permanent resources.

Competency Component: 8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objective: 8.3.6.4 The trainee shall be able to define and discuss PPBS as a means of effecting change.

Enabling Activities	*Resources*	*Comments*
8.3.6.4.A	8.3.6.4.A	
The Program - Planning - Budgeting - System has evolved over a number of years, but with the Excecutive Order of 1965, it became one of the most talked about systems in Education. While it is comprehensive and complex, it does follow a number of distinct "steps." These steps can be utilized in your work. The sources in the Resource Section afford you an excellent exposure to PPBS. Review them carefully. Submit a list of the steps in the system that you have. Identify the steps in the system and present your list to your SECtraC Advisor.	Resource File 8.3.6.4.A Doherty, Victor. Goals and Objectives in PPBS. Eric microfiche #ED 044815 (file). Parden, R.J. (Ed.) An Introduction to Program Planning, Budgeting, and Evaluation for Colleges and Universities. The Proceedings of a Conference. Eric microfiche #044780 (file).	
8.3.6.4.B	8.3.6.4.B	
You would expect a system with the potential of the Program-Planning-Budgeting System to have had an impact on education. Many experts in the field have studied, reviewed and written on the System. Resource File 8.3.6.4.B contains a few current articles. Read these articles, as well as the section indicated in Garvue's book . Find at least five additional readings of your own and list them	1. Resource File 8.3.6.4.B Horton, R.L., and Bishop, K.W. Keeping up with budget crunch. Audiovisual Instruction, December, 1970, 15, 49-51. Tanzman, J. Planning your media program's future. School Management.	

Behavioral Objective *Continued:*

8.3.6.4.B (continued)

on a separate page.

Use all of these resource to make a written report of no more than four pages which discusses PPBS n the following terms:

1. As a substitute for an educator's experience or intuition.
2. As an instrument as useful and appropriate to education as it is to business or government.
3. As a system compatible with other systems, for example, PERT.

8.3.6.4.B (contained)

Hartley, H. J. PPBS: a status report with operational suggestions. Educational Technology, April, 1972, 12, 19-22.

Sisson, R.L., Brewin, C.E., Jr., and Renshaw, G.H. An introduction to the educational - planning - programming-budgeting - system. Educational Technology, February, 1972, 12, 54-60.

Tanner, C.K. Educational operations research: an approach to PPBS Implementation. Educational Technology. December, 1971, 11, 50-51.

2. Garvue, R.J. Modern Public School Finance. New York: MacMillan Co., 1969. Pp. 96-119.

Competency Component: 8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objective: 8.3.6.4 The trainee shall be able to define and discuss PPBS as a means of effecting change.

Activity No. — *Evaluation Criteria*

8.3.6.4.A

The trainee was to review the references in Resource File 8.3.6.4.A to gain some insight into the Program-Planning-Budgeting-System (PPBS) and then to identify the steps in the system. Once this task was completed, he was to submit them to his advisor.

While the responses to this activity may vary, they should include at least a resemblance of the following:*

1. Gather data necessary to determine and substantiate needs.
2. Set goals in terms of needs.
3. Design a program for achieving goals.
4. Develop alternative programs for achieving goals and weigh the cost of each against its benefits.
5. Compare the results of each activity, as the program carried out, to the expectations designed for it. Reject inefficient activities and replace them with alternative programs.

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*Tanzman, J. Planning your media program's future. School Management.

Competency Component: 8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objective: 8.3.6.4 The trainee shall be able to define and discuss PPBS as a means of effecting change.

Activity No.	*Evaluation Criteria*
8.3.6.4.B	The trainee was asked to read all the references contained in Resource File 8.3.6.4.B and at least five additional readings (listed on a separate page) so that he might write a comprehensive report (no more than four pages) which discusses PPBS in the following terms: 1. As a substitute for an educator's experience or intuition 2. As an instrument as useful and appropriate to education as it is to business or government. 3. As a system compatible with other systems, for example, PERT. Although the nature of this activity dictates individual evaluation, the trainee should have noted, as Horton points out, the following criteria to utilize PPBS effectively: 1. Prepare a summary table of all available resources 2. Identify the functions of the source desiring to implement PPBS. 3. Identify the staff concerned with each of these functions. 4. Identify one or more key workload elements of each major function. 5. Construct a model which represents the key elements by function, the staff and resources devoted to the function, and the staff-work ratio for the past and present.

Competency Component: 8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objective: 8.3.6.5 The trainee shall be able to apply PERT, or another technique of his choice, to the task of establishing a local resource center.

Enabling Activities	Resources	Comments
8.3.6.5.A A case study of a local problem is presented in Resource File 8.3.6.5.A. Apply PERT to this problem, using the technique and your own creativity to solve th problem. Figures 40 and 41 in Cook;s book give you an excellent starting point.	8.3.6.5.A Resource File 8.3.6.5.A Cook, D.L. PERT/Applications in Education. U.S. Department of Education, pp. 49-55.	8.3.6.5.A Make sure you show the Pictorial Work Breakdown Structure, but worry about concept, not detail.
8.3.6.5.B Figure # 4 in Program, Evaluation and Review Technique: Applications in Education gives the Summary Network for a School Plant Project. You are to assume that project is the establishment of a local resource center to service Special Education Teachers. Describe what would be involved for each event as they are identified in this Figure.		8.3.6.5.B An An example might be: Event No. 2: Start Enrollment Projections. This activity and the Educational Program Projections can be carried on simultaneously, but each would have to be completed before Event #4, a summary, could take place. Personnel would have to be appointed to collect data so that projections could be made, and appropriate resources and instruments ascertained to make the projections reliable.

Competency Component: 8.3.6 To assist the trainee in developing procedures and/or techniques to help produce effective and efficient program changes.

Behavioral Objective: 8.3.6.5 The trainee shall be able to appy PERT, or another technique of his choice, to the task of establishing a local resource center.

Activity No.	*Evaluation Criteria*
8.3.6.5.A	The trainee was to apply the PERT system to a case study problem found in Resource File 8.3.6.5.A. This is an individualistic activity involving the trainee's creativity and ingenuity as well as the application of PERT! The advisor is to examine the Pictorial Work Breakdown Structure to determine if the trainee fully comprehends PERT and has properly applied the system to the problem. Ask the trainee to explain the rationale for his pictorial breakdown.
8.3.6.5.B	The trainee was to analyze Figure #4 in Program, Evaluation and Review Technique: Applications in Education and assume that the project is the establishment of a local resource center to service Special Education Teachers. As a part of this analysis, the trainee was to describe what would be involved for each event as they are identified in this Figure. The responses in this activity will vary to the extent of necessitating individual evaluations; however the trainee's responses should be consistent with those of 8.3.6.1.A. An example was included to provide assistance to the trainee. It is repeated here as a possible aid in evaluation of this activity. An example might be: Event No. 2: Start Enrollment Projections. This activity and the Educational Program Projections can be carried on simultaneously, but each would have to be completed before Event #4, a summary, could take place. Personnel would have to be appointed to collect data so that projections could be made, and appropriate resources and instruments ascertained to make the projections available. The advisor should check the sequence of events for feasibility of implementation.